

STATE OF GEORGIA
TIER 2 TMDL IMPLEMENTATION PLAN **REVISION 1**
 Euharlee Creek
 Coosa River Basin
 April 28, 2006

Bartow and Polk Counties, Cities of Euharlee, Taylorsville, Aragon, Rockmart, and Braswell

I. INTRODUCTION

Total Maximum Daily Load (TMDL) Implementation Plans are platforms for evaluating and tracking water quality protection and restoration. These plans have been designed to accommodate continual updates and revisions as new conditions and information warrant. In addition, field verification of watershed characteristics and listing data has been built into the preparation of the plans. The overall goal of the plans is to define a set of actions that will help achieve water quality standards in the state of Georgia.

This implementation plan addresses the general characteristics of the watershed, the sources of pollution, stakeholders and public involvement, and education/outreach activities. In addition, the plan describes regulatory and voluntary practices/control actions (*management measures*) to reduce pollutants, milestone schedules to show the development of the management measures (*measurable milestones*), and a monitoring plan to determine the efficiency of the management measures.

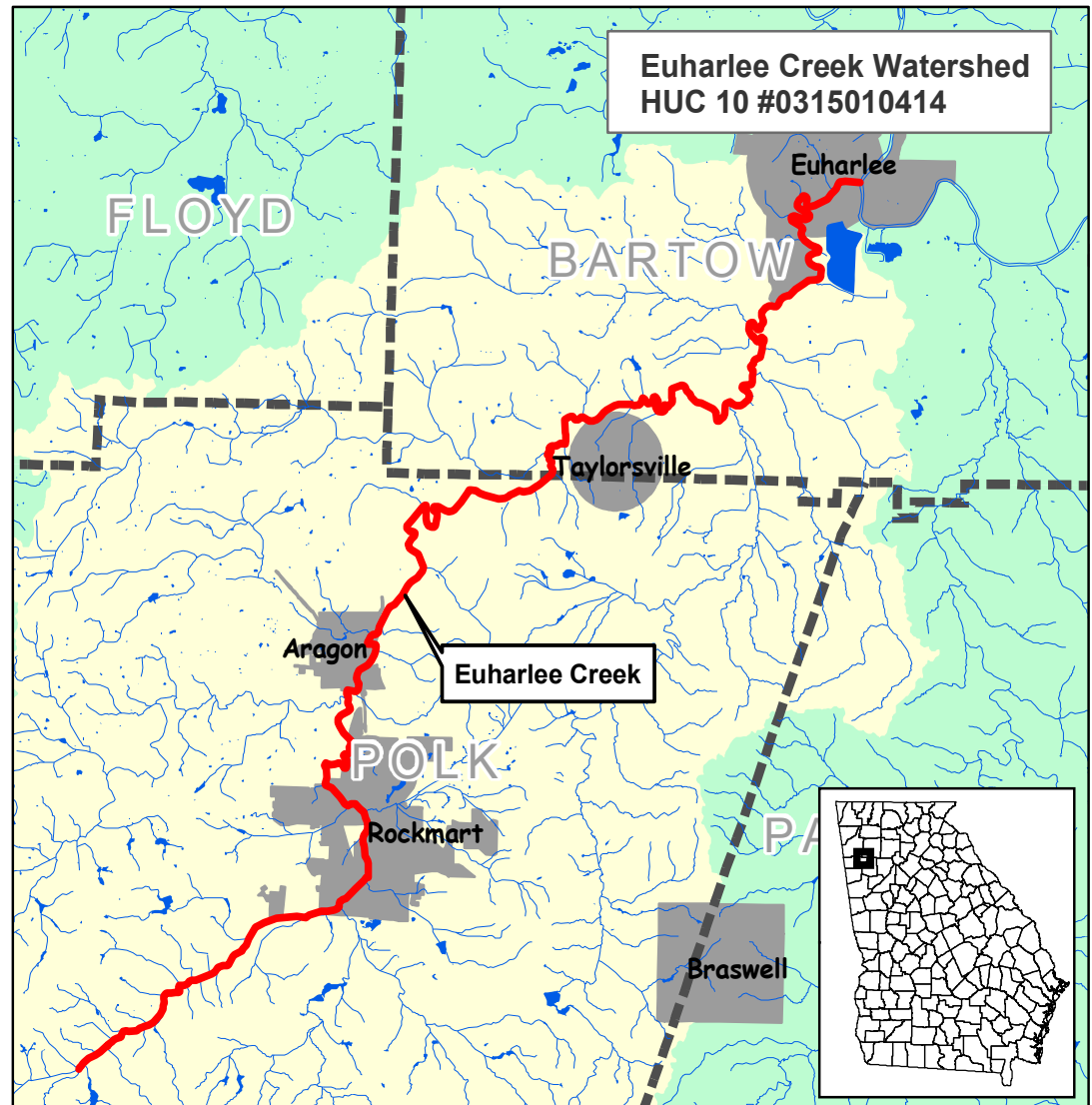


Table 1. IMPAIRMENTS

IMPAIRED STREAM SEGMENT	IMPAIRED SEGMENT LOCATION	IMPAIRMENT	TMDL ID
Euharlee Creek	Hills Creek to upstream Plant Bowen (EPA)	Biota (Sediment)	CSA0000101
Euharlee Creek	Polk and Bartow Counties (EPA)	Biota (Sediment)	CSA0000090
Euharlee Creek +	Hills Creek to upstream Plant Bowen	Fecal Coliform Bacteria	CSA0000007

+ RDC previously developed inventory for stream which will be used as plan.

II. GENERAL INFORMATION ABOUT THE WATERSHED

Write a narrative describing the watershed, HUC 10 #0315010414. Include an updated overview of watershed characteristics. Identify new conditions and verify or correct information in the TMDL document using the most current data. Include the size and location of the watershed, political jurisdictions, and physical features which could influence water quality. Describe the source and date of the latest land cover/use for the watershed. Describe and quantify major land uses and activities which could influence water quality. See the instructions for more information on what to include.

Euharlee Creek (7.0 miles in length) lies northwest of Atlanta, Georgia in Bartow and Polk Counties. It drains an area southwest of Cartersville, Georgia and discharges into the Etowah River. The creek lies in the Southern Limestone/Dolomite Valley and Rolling Hills Ecoregion (67f). Euharlee Creek flows northeasterly from headwaters in Haralson County, through Polk County into the southeast corner of Bartow County to enter the Etowah River at Euharlee, Georgia.

The undulating valleys, rounded ridges and hills characterize the ecoregion. Land use is variable with the presence of forests, pasture, urban/sub-urban, industrial and agriculture.

One segment of Euharlee Creek, Hills Creek to upstream Plant Bowen, is listed by Georgia EPD for fecal coliform. The Coosa Valley RDC previously developed an inventory for this segment. The segment is also listed for sediment but only for tracking purposes. The entire length of Euharlee Creek is listed by EPA for sediment. The current plans address the entire length of the Euharlee in Polk and Bartow Counties as well as the specific segment upstream of Euharlee from Hills Creek to upstream Plant Bowen.

Municipalities in the watershed include the **Cities of Euharlee, Aragon, Braswell, Taylorsville and Rockmart**, as well as **Bartow and Polk Counties**. Bartow County's jurisdiction includes the following activities: Zoning, Development, Land Usage, Erosion and Sediment Control, Solid Waste, Storm Water, Septic Tank Permitting, Public Water, and Wastewater Treatment.

The field survey indicated that although this area is experiencing residential and commercial growth, and highway widening projects have recently been completed on Highway 278, much of the watershed is still rural with pastureland and some row crops. Land disturbing activities were also seen.

Land Use

Land use includes the following categories: Forest, 79,365 acres; agriculture, 29,063 acres; barren, 2,016 acres; commercial/industrial, 933 acres; wetlands, 794 acres; urban, 711 acres; water, 443 acres (EPA, 2004). Of agriculture, land use is primarily cropland with cow/calf and goat livestock operations. The data on land use are taken from EPA publication *Total Maximum Daily Load (TMDL) for Sediment in Tallapoosa and Coosa River Basins* (2004). This is the most recent land use data available for this watershed. Some change has occurred as residential development around Rockmart has increased percentage of low-intensity and high-intensity residential.

Relevant Watershed Planning and Management Activities

Erosion and Sedimentation Control:

The City of Rockmart and Bartow County are Local Issuing Authorities for E & S permitting of land-disturbing activities which are required to submit an NOI under the NPDES General Permit for Construction Activity. However, Polk County is not. EPD Mountain District oversees stream buffer variances, Construction Activity NOIs, compliance and enforcement activities for Polk County and the Cities of Taylorsville and Aragon.

Polk County does not have an E & S ordinance; it is in the process of developing these codes.

Bartow County revised its E & S Control ordinance in 2002. It meets current Georgia E & S requirements. This ordinance applies to land disturbing activities on one acre of land or more. It is administered by the Bartow County Engineer through the Planning and Zoning Department. It is currently being reviewed and updated to include recommendations developed by a regional habitat conservation plan, the Etowah Habitat Conservation Plan. The Etowah Habitat Conservation Plan is a joint effort of municipalities, water authorities, developers, industry, the University of Georgia, Kennesaw State University, Georgia DNR, the US Fish and Wildlife Service, and others in the Etowah River watershed to protect threatened and endangered species of darter by developing a regional conservation plan. The plan allows included jurisdictions to be in compliance with the Federal Endangered Species Act and to obtain an Incidental Take Permit from the US Fish and Wildlife Service for development activities. Additionally the County is currently reviewing and updating all regulations and processes in its development code.

According to the Bartow County Watershed Assessment and Protection Plan, there are six standard operating procedures required of local governments for erosion and sediment control. These include a bonding program for workers, a requirement for semi-monthly reporting, weekly county inspections at each site, addition of erosion and sedimentation to the building inspectors' checklist, two required pre-construction meetings with site planner and crew, and lastly, the designation of an on-call erosion and sedimentation expert for the project. Some of these requirements may be revised in light of the recent erosion and sedimentation certification requirements.

House Bill 285 requires state certification in E & S Control for anyone involved in the following activities: land development, design, review, permitting, construction, monitoring, inspection, or any land-disturbing activity in Georgia (Georgia Soil and Water Conservation Commission, 2005). This certification is done through training by the Georgia Soil and Water Conservation Commission in consultation with Georgia Environmental Protection Division and the Stakeholder Advisory Board. The GSWCC also has updated requirements for E&SC plans to be submitted with each project. Certification requirements apply to all such persons in Bartow and Polk Counties. Certification is offered through the Rolling Hills Regional Conservation and Development Council (RC & D). Bartow County itself has held one class for Level 1A certification in December 2005; other certification level training classes are planned.

Bartow County conducted a water quality sampling study of Euharlee Creek to test fecal coliform levels from January to December 2003 to verify the EPD's 2001 listing of the creek for fecal coliform. Quarterly sampling was done on Euharlee Creek and four tributaries. All samples tested over the state water quality standard for fecal coliform, that is 1,000 per 100 ml (geometric mean November- April) and 200 per 100 ml (geometric mean May- October).

POLK COUNTY

Polk County has no separate stormwater system or MS4 operation.

The Polk County Water Authority (created in 1968) oversees provision of water to the county with permitted withdrawals that currently exceed demand. Due to growth in the area new sources of fresh water are being sought for future need. The Authority has not been required to conduct a watershed assessment for its service area. One treatment plant is operated by the Authority as well as the water pollution control plant operated in the City of Aragon.

The county has a Floodplain Management/Flood Damage Prevention Ordinance and in its planning and zoning regulations includes greenspace for recreational purposes in a specific zone for Planned Residential Development sites. A litter control ordinance is also on the County's books. These ordinances are enforced by the County's Ordinance Enforcement Officer.

ARAGON

The City of Aragon has its Soil and Erosion Ordinance (Section 18 Article IV) that applies to land disturbing activities of 1.1 acre or more, mandates submission of a soil and erosion control plan to EPD Mountain District, BMPs and their maintenance, and conforms to the State Manual for Erosion and Sedimentation, including buffers of 50 feet along primary trout streams, 25 foot buffers along streams, and 100 feet along designated trout streams. Agricultural and forestry are excepted. The City has its Wetland Protection Ordinance (Ord. 620), adopted 2002, that regulates development activities that would impair or cause to be lost those wetland areas as specified by the US Corps of Engineers with exceptions for recreation, forestry, and agricultural activities. The City's Flood Damage Control Ordinance (Ord. No. 640), adopted 2002, will be updated. The City has its Litter Control Ordinance (Ord. No. 220, XXVII) adopted in 1987. The City's Zoning ordinance adopted in 1990 and subdivision ordinance (2001) do not include a Planned Residential Development zone or greenspace/ open space requirement. Stormwater drainage structures are required however.

ROCKMART

The city has adopted ordinances enforced by the code enforcement officer. Ordinance No.6, the Soil Erosion and Sedimentation Control Ordinance was adopted in 2004 and requires Best management practices be used for land disturbing activities. Ordinance No.002, the Flood Damage Prevention Ordinance was adopted in 1998 and addresses areas of special flood hazard.

The City of Rockmart has EPD authorization to permit for Pretreatment of Industrial Wastewater. A Source Water Assessment Plan was developed for the City of Rockmart's secondary emergency water intake on Euharlee Creek, southeast of Rockmart. The intake feeds into the City of Rockmart Water Purification Control Plant, which has a permitted capacity of 1.50 MGD (CVRDC, 2003). Water quality testing indicated no violation of state water quality standards.

The 2003 SWAP for the City of Rockmart's secondary water intake indicated possible sources of pollution. Fecal Coliform bacteria was seen as one of two major pollutants in this rural watershed with sources being livestock and wildlife and pollution sites being bridges, fuel facilities, a garbage transfer station, and railroad and stream crossings (CVRDC, 2003). The 2003 SWAP listed an illegal trash-dumping site near Euharlee Creek on Government Farm Road (CVRDC). Concerns listed for the creek's watershed included a railroad bridge just above the Rockmart

intake, another bridge upstream, storm drain issues with local businesses, and possible spills of hazardous chemicals (CVRDC, 2003). Turbidity could be caused by land erosion due to disturbance activities such as clear-cutting timber or building sites (CVRDC).

Rockmart is conducting a watershed assessment for its WPCP; it is in the process of monitoring for biota and habitat as well as other parameters on the Euharlee Creek, up (at Government Farm Road; confluence of Thompson Creek and the Euharlee) and downstream (in Aragon at Highway 101) of the City of Rockmart for the November-April period and through the summer for the May-October period. The watershed assessment may be completed in 2006. Both sites are long-term monitoring sites.

The NRCS has provided technical assistance to control erosion from the Polk County landfill.

Existing floodplain management ordinances will be revised as counties participate in updating their flood hazard regions through the National Flood Plain Insurance Program/ Georgia DNR Floodplain Management Office Flood Map Modernization Program.

Georgia Forestry Commission Best Management Practices

The Forestry Commission has implemented best management practices on its lands to reduce sedimentation and erosion from silviculture practices. The Georgia Forestry Commission also provides education, technical and financial assistance through cost-share programs to private landowners especially in the Forestland Enhancement Program, a part of the 2002 Farm Bill. Ongoing Georgia Forestry Commission activities include the following programs.

- Federal Clean Water Act Section 404: GFC received referrals from EPA for compliance determinations in situations involving forestry. It requires normal ongoing agricultural and silvicultural practice to adhere to BMPs and 15 baseline provisions for road construction and maintenance in and across waters of the US including lakes, rivers, perennial and intermittent streams, wetlands, sloughs in order to qualify for the exemption from the permitting process.
- Georgia's Best Management Practices: A GFC program to inform landowners, foresters, timber buyers, loggers site preparation and reforestation contractors and others involved with silvicultural operations about commonsense, economical effective practices to minimize nonpoint source and thermal pollution. GFC encourages and monitors compliance and conducts a complaint resolution program.
- Georgia Forestry Commission Monthly BMP Assurance Examination: In an effort to document "reasonable assurance" that water quality will be proactively protected during regular ongoing silvicultural operations, the GCF will offer a monthly BMP assurance examination of active sites. All active of ongoing sites will be identified either through monthly air patrol flights, courthouse records, riding the roads, notification or by landowners. Sites located within watersheds of specific biota (sediment) impaired streams will be given a higher priority to identify and conduct examinations.
- Memo to the Field: Application of BMPs to mechanical silvicultural site preparation activities for the establishment of pine plantations in the Southeast (Silviculture). Although overseen by the EPA/ US Army Corps of Engineers, cases are normally referred to GFC to make the initial determination. It identifies certain bottomland hardwood wetlands that should be subject to permitting if converting to pine plantations.

Department of Natural Resources Best Management Practices

The Department of Natural Resources, Wildlife Management Division provides outreach to landowners on prevention of soil erosion and sedimentation from land-disturbing activities contributing to habitat destruction, advises landowners of best management practices and habitat development for increased wildlife on their property, and encourages landowners to implement conservation practices on their lands through the NRCS.

2002 Farm Bill, US Department of Agriculture Natural Resources Conservation Service and Farm Service Agency

The Farm Security and Rural Investment Act of 2002 (Farm Bill 2002) funded conservation practices for farmers and ranchers with a focus on environmental issues by making existing programs simpler as well as funding new programs. The 2002 Farm Bill enhances the long-term quality of our environment and conservation of our natural resources. This bill provides several opportunities for receiving grants to improve water quality. These include the following programs administered by the US Department of Agriculture, Natural Resources Conservation Service and Farm Service Agency. Farmers in this area have applied for the EQIP Program in particular. EQIP is widely used for the area's poultry and cattle operations. Through this program or through the permitting process for AFO status operations, certain farmers are required to develop Soil and Erosion Control Plans for their farms. Farms are checked yearly to see that they have implemented those measures so that they remain in compliance for funding. EQIP programs are in use in this watershed including prescribed grazing, fencing, nutrient management, and animal waste storage structures.

- The Federal Farm Bill (Swampbuster Ag) prohibits landowners participating in federal price support programs from converting forested wetlands to agriculture.
- The Water Bank Act preserves, restores and improves wetlands of the Nation and thereby conserves surface waters to preserve and improve habitat for migratory waterfowl and other wildlife resources to retire lands not in agricultural production to enhance the natural beauty of the landscape and to promote comprehensive and total water management planning. 10-year contracts with landowners to preserve wetlands and retire adjoining agricultural lands. Annual payments may be made to participating owners, and the costs of conservation measures may be shared. Total annual payments to owners were limited to \$10 million in any year.
- The Conservation of Private Grazing Land Program will offer technical assistance opportunities for better grazing land management. Projects for improving water quality include: protecting soil from erosive wind and water; conserving water; providing habitat for wildlife; sustaining forage and grazing plants. This is not a Cost-Share Program.
- Conservation Security Program (CSP) is the first program that rewards farmers and ranchers for high levels of environmental stewardship. Producers on cropland, orchards, vineyards, pasture and range may apply for CSP regardless of size, type of operation, or crops produced. Land in other cost share programs is not eligible. CSP will first be offered in watersheds with greatest potential for improving water quality, soil quality and grazing land condition. In 2005, the four watersheds of focus will be the Ichawaynochaway, Kinchagoonee-Muckalee, Middle Flint, and Upper Ochlockonee. An enhancement example is to install a riparian buffer. There are three tiers of involvement, which result in different expectations and cost share opportunities.
- Environmental Quality Incentives Program (EQIP) is a voluntary program that provides technical and cost share assistance for protection of ground and surface water, erosion control, air quality, wildlife habitat, and plant health. It is a 50% cost share with possible additional incentive payments.

- Wetlands Reserve Program (WRP) provides technical and financial assistance to landowners to enhance wetlands degraded by farming or draining. There are three options with WRP to receive funds that have differing time agreements and easements resulting in different cost share. In all programs participants control access to the land, may lease or use land for hunting, fishing, and other passive recreational activities. Compatible uses are allowed as long as they do not degrade the wetland. Permanent Easement pays appraised value of land (\$2,000/ acre cap) and 100% of costs of restoration. The 30-Year Easement pays 75% of appraised value of land and 75% of restoration costs. The Restoration Cost Share Agreement pays 75% of restoration costs, no easement on the property.
- The Conservation Reserve Program (CRP) provides technical assistance, rental payments and cost share funding to address specific natural resource concerns including: protection of ground and surface waters, soil erosion and wildlife habitat. Eligible practices include tree planting, grassed waterways, wildlife habitat buffers, and shallow water area for wildlife and filter strips. An annual rental payment is given for land taken out of production and 50% cost share for practice installation.

Metropolitan North Georgia Water Planning District Model Ordinances

Bartow County is a member of the Metropolitan North Georgia Water Planning District, which was created by the Georgia General Assembly to establish policy, create plans and promote intergovernmental coordination of all water issues in the area from a regional perspective. The county is included in the Metropolitan Water Planning District's Watershed Management Plan, which includes six protection strategy areas:

- Point Source Management
- Storm Water Management
- Total Maximum Daily Loads (TMDLs)
- Watershed Improvement
- Intergovernmental Coordination
- Long-term Monitoring

The MNGWPD Watershed Management Plan required each member to adopt these six model ordinances:

- Ordinance for Post-Development Stormwater Management for New Development and Redevelopment
- Floodplain Management/Flood Damage Prevention Ordinance (in review)
- Conservation Subdivision/Open Space Development Ordinance
- Illicit Discharge and Illegal Connection Ordinance
- Litter Control Ordinance
- Stream Buffer Ordinance

Bartow has adopted five of six Model Storm Water Management Ordinances that address Post Development Storm Water Management for New Development and Redevelopment, Conservation Subdivision/ Open Space Development, Illicit Discharge and Illegal Connection, Litter Control, and Stream Buffer Protection as required by Georgia EPD in MS4 Phase II Permit Renewals. The District Plan also addresses municipal good housekeeping practices to control non-point source pollution; improved enforcement of erosion and sedimentation control; storm water management for transportation projects; and education and public awareness activities. Bartow County has not adopted the District's Floodplain Management/Flood Damage Prevention Ordinance, as it is being reviewed by the District. Bartow's current flood plain ordinance meets national flood insurance requirements and was revised as of 2000. The City of Taylorsville falls under the County's jurisdiction for stormwater management.

The City of Euharlee has adopted one of the six ordinances of the Metropolitan North Georgia Water Planning District: the Euharlee Soil Erosion and Sediment Control Ordinance, including stream buffer requirements, which was adopted January 2004. The other proposed ordinances which will be adopted by March 1, 2006 are as follows: Post-Development Stormwater Management, Floodplain Management, Conservation Subdivision/Open Space Development, Illicit Discharge and Illegal Connection, and Litter Control. These ordinances will be enforced by the City of Euharlee's Code Enforcement Officer.

Existing floodplain management ordinances will be revised as counties participate in updating their flood hazard regions through the National Flood Plain Insurance Program/ Georgia DNR Floodplain Management Office Flood Map Modernization Program.

Bartow County Board of Tax Assessors is considering a proposed tax relief program for property owners who place conservation easements on all or part of their properties, especially for greenspace on timberland.

Bartow County Watershed Assessment and Protection Plan

Between 1990 and 2000 Bartow County experienced a 36% growth rate; subsequently the County began the Bartow County Growth Management Plan, completed in 1997, which was based on input from local residents and economic development experts and which suggested specific growth management strategies including expansion of water and wastewater treatment operations.

In 2000 Bartow County contracted with Kennesaw State University to conduct a watershed assessment as part of the watershed assessment and protection plan development requirements for existing and new wastewater treatment plants under NPDES. This assessment indicated that overall, streams in Bartow County were in "moderately good condition relative to other systems in the Atlanta metropolitan area (KSU, 2001)." However, the report pointed out that fecal waste among other impairments was present in individual streams including Lower Pumpkinvine Creek, Lower Stamp Creek, Salacoa Creek, Lower Euharlee Creek, Upper Two Run Creek, Upper Pettit Creek, Cedar Creek, Pine Log Creek, and Richland Creek (KSU, 2001). Some of these creeks were placed on the 2004 303 (d) impaired streams list for fecal coliform bacteria.

Bartow County is considering expansion of the Bartow County Wastewater Treatment Plant in 2006-2007 and has conducted a county watershed assessment and developed the Bartow County Watershed Protection Plan as part of its expansion process to meet NPDES permitting standards. The watershed assessment results relate directly to the TMDL initiative.

Bartow County's Watershed Assessment and Protection Plan strategies were developed according to the Metropolitan North Georgia Water Planning District (District) Water Management Plan of 2003. The protection plan strategies include point source management, storm water management, the Total Maximum Daily Load initiative, watershed improvements, intergovernmental coordination and long-term monitoring. These strategies are covered as part of the District's Water Management Plan as well as the TMDL implementation plans; the NPDES Phase II for MS4's also requires implementation of the majority of these strategies.

Stormwater Management

Bartow County has an NPDES-permitted Small Municipal Separate Storm Sewer System (MS4) and is subject to the Phase II MS4 Stormwater Rules. These extended Phase II permitting rules include six parameters that deal with water quality including 1. Public Education and Outreach;

2. Public Participation and Involvement; 3. Illicit Discharge Detection and Elimination; 4. Construction Site Runoff Control; 5. Post-Construction Runoff Control; 6. Pollution Prevention and Good Housekeeping. Bartow County's NOI for its NPDES Phase II Stormwater Permit for a small MS4 was approved in 2005. Municipalities of Taylorsville and Euharlee would need to submit separate NOIs if they developed an MS4 for their jurisdictions. County-wide outreach activities however would include these municipalities.

Components of Bartow County's NPDES Phase II Stormwater Management Plan involving Public Education and Outreach include the following:

- School System Stormwater Presentations provided yearly to teachers, students in county and city elementary and middle grades by the Keep Bartow Beautiful Coordinator;
- E & S Training Workshop on appropriate measures to control runoff and pollution provided biannually to the Bartow County Homebuilders' Association coordinated by the Bartow County Director of Engineering;
- Speaker's Bureau to speak on stormwater topics to area civic groups, with speakers to include County Administrator, Bartow County Water Superintendent, Stormwater personnel, and Keep Bartow Beautiful Coordinator;
- Stormwater Educational Materials, including a variety of flyers and pamphlets on E&S practices for homebuilders, new homeowners, and other topics such as septic system maintenance, xeriscape landscape plans, and proper fertilizer/pesticide application, developed by the Clean Water Campaign, P2AD, and EPA;
- Stormwater Management web page on the Bartow County Engineering Department's web space to include lawn and garden activity tips, water conservation, household waste disposal, household recycling, septic system maintenance, hazards of illicit dumping, and others;
- Newspaper Column on homeowners' stormwater pollution prevention responsibilities to be published quarterly in the Daily Tribune, written by the Bartow County Extension Agent.

Bartow County's Stormwater Management Plan includes 30 best management practices which include education and outreach in schools, to homeowner's associations, to the general public in brochure format, as well as news articles in the local paper dealing with stormwater management, volunteer stenciling of storm drains, and stream cleanup. These BMPs are carried out in cooperation with the County Extension Service, Keep Bartow Beautiful, the Boy and Girl Scouts, the County Engineer, and others in the County.

Bartow County is mapping stormwater drainage outfalls throughout the county to remain in compliance with its Phase II MS4 stormwater permitting. In 2006 100% of the county's stormwater outfall mapping is scheduled to be completed.

Etowah Habitat Conservation Plan

The Etowah Habitat Conservation Plan reflects the work done by municipalities, water authorities, developers, industry, the University of Georgia, Kennesaw State University, Georgia DNR, the US Fish and Wildlife Service, and others in the Etowah River watershed to protect threatened and endangered species of darter by developing a regional conservation plan. The plan, including model ordinances and policies, allows included jurisdictions to be in compliance with the Federal Endangered Species Act and to obtain an Incidental Take Permit from the US Fish and Wildlife Service for development activities in the watershed, excluding agriculture and forestry. Ordinances and policies for implementation include the following:

- Stormwater Ordinance and Better Site Design
- Runoff Limits Program

- Erosion and Sedimentation Control Standard Operating Procedures
- Mass Grading Ordinance
- Stream Buffer Ordinance
- Road Crossing Guidelines
- Utility Crossing Guidelines
- Conservation Subdivision Ordinance
- Water Supply Planning

Existing municipal ordinances covering these areas can be updated. Revisions to the Metropolitan North Georgia Water Planning District Model Ordinances were recommended by the Etowah HCP subcommittees, as were revisions to the Bartow County Watershed Assessment and Protection Plan.

Specific areas of concern to the Etowah River identified by the Etowah Regional Aquatic Habitat Conservation Plan, and the corresponding actions taken by the county to address them, include:

- Poor riparian buffers
- Point sources
- Construction
- Channel erosion
- Historic sediment
- Impervious surfaces and storm water runoff
- Livestock
- Invasive Species
- Water Reservoirs

Bartow County has adopted the Metro North Georgia Water Planning District's model stormwater ordinance as revised by the Etowah HCP. The County is in the process of coordinating other existing ordinances with review of the Etowah HCP. Yet other revisions and ordinances dealing with runoff limits, road and utility crossings, are still being developed by the Etowah HCP.

Coosa River Basin Modeling Project (Georgia DNR EPD)

Georgia DNR EPD and USEPA are in the process of conducting a monitoring project to study the accuracy of the model developed for the Coosa River Basin. Monitoring is ongoing in 2005-2006 on the Coosa River and its tributaries. Data will be incorporated into the Total Maximum Daily Load (TMDL) for dissolved oxygen. The Coosa River Modeling work will be done by the Georgia DNR EPD in 2006 and 2007. A final model will link the Coosa River model and the Lake Weiss model. The combined models will evaluate oxygen demanding loads, nutrient loads, and temperature effects for heat loads, on dissolved oxygen (DO) concentrations in the Coosa River. The following data will be collected in separate modules:

- Watershed flow and temperature data
- Continuous water quality monitoring

- Water quality sampling
- Chlorophyll *a* sampling
- Wastewater treatment facility sampling and data collection (module 5)
- DO and temperature depth profiles
- Basin-wide phosphorus data
- Specialized studies
 - Reaeration measurements
 - Sediment Oxygen Demand measurements
 - Long-Term Biochemical Oxygen Demand (BODs)
 - Dye studies

Sites on Euharlee Creek will be included in the following testing modules: Flow and Temperature; Chlorophyll A; Water Quality Sampling (BOD, DO, Temp, TKN, NH₃, NO₂- NO₃, total P, ortho-phosphate, TOC, conductivity, and Ph); Basin-wide Phosphorus; Wastewater Treatment Facility Sampling (FC, other); Long-term BOD (Georgia DNR EPD).

Module 1: Watershed Flow and Temperature Data. This module includes the installation and annual operation and maintenance of watershed stream flow gages with temperature recorders, for two years. The data from these gages will be used either directly as model input or to estimate tributary input data for ungaged streams (Georgia DNR EPD).

Module 3: Water Quality Sampling. This module includes the collection and analysis of discrete water quality samples at locations on the Coosa River mainstem and tributaries from Allatoona Dam on the Etowah River, Carters Lake on the Coosawattee River, and the USGS Eton gage on the Conasauga River to the George/Alabama State Line. The data collection will include discrete mainstem and tributary water quality sampling. The samples will be analyzed for carbonaceous and total BOD₅ (inhibited and uninhibited), DO, temperature, TKN, NH₃, NO₂-NO₃, total phosphorus, ortho-phosphate, TOC, conductivity, and pH. Flow measurements will be made at the time of sample collection (Georgia DNR EPD).

Module 4: Chlorophyll A. Periodic collection of chlorophyll A data on tributaries.

Module 5, Wastewater Treatment Facility Sampling and Data Collection, will include discharge monitoring reports (DMRs) and/or operating monitoring reports (OMRs) data from wastewater treatment plants and sampling of mainstem and tributary dischargers. The additional sampling will be done as a quality assurance check for data given by the dischargers (Georgia DNR EPD).

Module 7: Basin-Wide Phosphorus Data. This module involves collecting available phosphorus data within the Coosa River Basin. Available phosphorus data from the various dischargers into the Coosa River Basin will be obtained. A review of all instream phosphorus data will be conducted. A special phosphorus study will be conducted to quantify the major point and nonpoint sources of phosphorus in the watershed. This information will provide an understanding of the magnitude and location of basin-wide phosphorus loads (Georgia DNR EPD).

Module 8: Special Studies. This module includes several specialized studies including reaeration, sediment oxygen demand (SOD), long-term BOD tests, and dye studies. River, tributary and selected wastewater treatment plant effluent samples will be collected for long-term BOD analysis during the field surveys. Long-term BOD analyses will include periodic testing of nitrogen components to determine possible nitrification

reactions. Aged river water will be used as dilution water, when necessary. Samples will be collected and analyzed from each location for both monitoring years (Georgia DNR EPD).

Other Watershed Activities

The Northwest Georgia Regional Water Resources Partnership (NGRWRP) was created in 2002. The NGRWRP is an organization of water permit holders, local governments, industry, environmental, and other advocacy entities in Northwest Georgia with an interest in water issues (North Georgia Regional Development Center, 2005). The purposes of the Partnership are to monitor and contribute to the development of federal, state, and local water policy; educate the citizenry on water related issues; seek funding and facilitate the development of regional water-related assessment and planning activities; and coordinate the activities of federal, state, and local entities (NGRDC, 2005). Gene Camp, Bartow County Water Department Superintendent, serves on the partnership's executive committee.

Bartow County is also a Yellow Ribbon-level member of the P²AD Partnership and has committed to a two-year effort (2004-2006) with Georgia Institute of Technology's Economic Development Institute to develop an Environmental Management System Program. The Yellow Ribbon level signifies that a county or other member is being proactive in addressing environmental impacts of development.

Rolling Hills Resource Conservation and Development Council conducts the Envirothon, a yearly competition for high school students, testing skills and knowledge of aquatics including water quality and other environmental topics. District and State competitions will be in March 2006. Other projects are in the proposal stages.

Adopt-A-Stream, in conjunction with Coosa River Basin Initiative (CRBI), conducts ongoing water quality chemical and biological volunteer training and monitoring, stream clean-ups, stream bank and habitat restoration, and visual stream surveys in Bartow County. Testing for fecal coliform is not practical at this time.

The Coosa River Basin Initiative conducts non-point source pollution education programs for elementary school students in Floyd County through a grant from Temple-Inland. As well, Get the Dirt Out is another project which provides volunteer training for construction site inspection and identification of failure to use BMPs in construction activities. The project was implemented in March 2005 and covers the Northwest Georgia area of the Coosa River Basin. Volunteer monitoring efforts are underway for sedimentation in Coot's Lake in Polk County.

Keep Bartow Beautiful runs several education and outreach programs including the following: Teacher training for Waste In Place, Project WET (Water Education for Teachers), and Enviroscape non-point source pollution using tabletop models; Stormwater-related presentation materials provided to schools; and a Speakers' bureau to provide outreach on storm water issues to local civic groups. Other projects are in the proposal stages. TREESBartow is a related program to encourage tree conservation in the county. A recent project is Springbank's new tree identification trail; proposed projects include an educational Earth Day event. Community cleanups are scheduled for April 2006.

Partners included Keep Bartow Beautiful, US Army Corps of Engineers, and EPD Mountain District. The target audience for this outreach and clean-up event was high school students. The cleanup efforts, which will become an annual event, take place in other locations as well, and satisfy education and outreach requirements for Bartow County's NOI. A River Festival culminates the event.

Keep Bartow Beautiful has a volunteer storm drain stenciling program ongoing since 2004 which is targeted to older developments in the city of Cartersville and urbanized areas served by the MS4. New residential developments must have storm drain stenciling done by the developer.

Bartow County Greenspace Committee acquires and preserves riparian buffers in Bartow County. This steering committee was formed in 2000 in response to Governor Barnes' greenspace initiative. Criteria for land purchases in the county include the following:

- Land should help protect waterways and watersheds;
- Land should have historical or biological importance- for example, the site of an old Indian village, or a swampland or wetland area;
- Area should be beneficial to wildlife;
- Area should link other areas, allowing for wildlife corridor; and
- Land should be affordable for the county program.

Greenspace lands will be used for recreation with walking trails, and will feature restored riparian buffers and other conservation measures. The committee is funded by SPLOST funds.

Euharlee Creek

COMPLETE THE FOLLOWING TABLES FOR AND NARRATIVES ABOUT EACH IMPAIRED STREAM IN THE WATERSHED.

STREAM SEGMENT NAME	LOCATION	MILES/AREA	DESIGNATED USE	PS/NS
Euharlee Creek	Hills Creek to upstream Plant Bowen (Bartow County) (EPA)	4	Fishing	NS

III. SOURCES AND CAUSES OF STREAM SEGMENT IMPAIRMENT LISTED IN TMDLs

After reviewing the TMDLs written for this stream, complete the following tables with **the information found in the TMDLs**. List each parameter for which the stream segment is impaired and the water quality standard violated. See the instructions for the water quality standards. Describe the sources and causes of each violation identified in the TMDLs.

Table 2. SOURCES OF IMPAIRMENT AS INDICATED IN TMDLs

PARAMETER 1	WQ STANDARD	SOURCES OF IMPAIRMENT	NEEDED REDUCTION FROM TMDL
Biota	No degradation of fish community	<ul style="list-style-type: none"> • Road Crossings • Agriculture (Row Cropping) • Bare ground • Silviculture 	92 percent

Euharlee Creek

COMPLETE THE FOLLOWING TABLES FOR AND NARRATIVES ABOUT EACH IMPAIRED STREAM IN THE WATERSHED.

STREAM SEGMENT NAME	LOCATION	MILES/AREA	DESIGNATED USE	PS/NS
Euharlee Creek	Polk and Bartow Counties (EPA)	25.5	Fishing	NS

III. SOURCES AND CAUSES OF STREAM SEGMENT IMPAIRMENT LISTED IN TMDLs

After reviewing the TMDLs written for this stream, complete the following tables with **the information found in the TMDLs**. List each parameter for which the stream segment is impaired and the water quality standard violated. See the instructions for the water quality standards. Describe the sources and causes of each violation identified in the TMDLs.

Table 2. SOURCES OF IMPAIRMENT AS INDICATED IN TMDLs

PARAMETER 1	WQ STANDARD	SOURCES OF IMPAIRMENT	NEEDED REDUCTION FROM TMDL
Biota (Sediment)	No degradation of fish community	<ul style="list-style-type: none"> • Road Crossings • Agriculture (Row Cropping) • Bare ground • Silviculture 	92 percent

IV. IDENTIFICATION AND RANKING OF POTENTIAL SOURCES OR CAUSES OF IMPAIRMENT

INVESTIGATE AND EVALUATE the sources of impairment for each parameter listed in Table 2. Write a narrative describing efforts made or procedures used to verify the significance and extent of the sources or causes of each impairment listed in the TMDLs. Include:

- Involvement of stakeholder group
 - Field surveys
 - Review of land cover data
 - Evaluation of sources
-

Verification of the significance and extent of the sources or causes of each impairment listed in the TMDLs was done through a series of field surveys and stakeholder meetings. The TMDLs list four probable causes of Biota (Sediment) impairment: Road Crossings; Agriculture (Row Cropping); Bare ground; and Silviculture.

The impaired stream segments were driven to verify potential sources or causes of impairment. A series of stops allowing visual field surveys of this segment of the Etowah River were conducted to visually evaluate stream condition including turbidity, sedimentation and erosion, stream bank condition, stream bed condition, depth, flow, and color. Field surveys also noted the presence of any factors thought to contribute to non-point sources of fecal coliform loadings including wildlife, animal grazing, animal access to streams, application of manure to pastureland and cropland, possibility of leaking septic systems, Land Application Systems (LAS), CAFOs, and landfills.

This data from field surveys was combined with GIS data and EPD listings of NPDES dischargers as well as information from stakeholders. Local stakeholder input was gathered in a series of stakeholder meetings; contacts with local government officials and other individuals were also used to determine actual causes or sources of stream impairment. Photographs of sources seen in the field surveys and corroborated by stakeholders are found in Appendix C.

Euharlee Creek (Hills Creek to upstream Plant Bowen in Bartow County)

Biota/ Sediment

Point Sources

There are several NPDES- Permitted Point Source Dischargers located just outside the watershed on the Etowah River and upstream of this segment of Euharlee Creek. These include the City of Aragon WPCP, Permit # GA0026182, (operated by Polk County Water Authority), the Rockmart WPCP, Permit # GA0026042, Vulcan Materials Rockmart, Permit # GA0036803, Engineered Fabrics Corporation, Permit # GA0000523, and the Rockmart Slate Corporation, Permit # GA0001929.

Non-Point Sources

Commercial Sod Farming

Near the City limits of Taylorsville, the area around the creek banks is used for sod farming. This is a commercial activity and is separate from agriculture. If needed buffers and other measures are not established to prevent erosion, sod farming can lead to sedimentation.

Dirt Roads

Dirt roads in the area may be a source of erosion and sedimentation. Polk County recently received State funds for road improvements.

Agricultural: Stream Access and Row Cropping

Runoff from pastures and croplands could contribute to the sediment loading, as approximately one-fourth of the area land use is agricultural. Near the City limits of Taylorsville, the area around the creek banks is used for hay growing and pastureland. Outside the City, farmers row crop cornfields with some buffer near the creek banks. This type of agriculture may add to sediment runoff near the creek banks if buffers, other measures are not taken to reduce erosion. Please see photograph 3. 3015010416 Euharlee Creek Hills Creek to Upstream Plant Bowen: Old Alabama Rd- Corn row crops.

Through the NRCS, many agricultural operators apply for the EQIP, Conservation Reserve Program cost-share programs to apply BMPs, riparian buffers, to lands to prevent erosion.

Euharlee Creek (Polk and Bartow Counties)

Point Sources

There are several NPDES permitted dischargers into Euharlee Creek, including the City of Aragon WPCP, Permit # GA0026182, (operated by Polk County Water Authority), the Rockmart WPCP, Permit # GA0026042, Vulcan Materials Rockmart, Permit # GA0036803, Engineered Fabrics Corporation, Permit # GA0000523, and the Rockmart Slate Corporation, Permit # GA0001929.

There are no LAS dischargers or any CAFOs in the watershed. There is one inert landfill located on US Highway 278 south of the Rockmart City limits and is operated by a private company (Polk Environmental Fill Inc.). This could be a possible source of sediment to the Euharlee creek watershed.

The cities of Aragon, Taylorsville and Euharlee do not have any discharges to the creek other than stormwater runoff in general.

Deaton Springs Water Treatment Plant Permit # GAG640007

Discharges into Euharlee Creek. This plant has a backwater discharge.

Possible runoff from mining operations south of Rockmart City limits could contribute to sediment loadings. There are mines located off the Old Vinson Mountain Road (Georgia Slate Mine). Runoff would enter the tributaries to Euharlee Creek upstream of the City Limits.

Landfill operations located on US Highway 278 near Coots Lake, south of the Rockmart City limits, could also have their effects. The Polk County Environmental Fill, Inc., permit # PBR-115-13IL, is a privately operated facility on Eagle Watch Drive.

The NRCS has provided technical assistance to control erosion from the Polk County Municipal Solid Waste Landfill, Permit # 115-008D(SL), on Grady Road. There are no CAFOs or LAS sites located within the watershed.

Non Point Sources

Dirt Roads

Dirt roads in the area may be a source of erosion and sedimentation. Polk County recently received State funds for road improvements.

Agricultural: Stream Access and Row Cropping

Runoff from pastures and croplands could contribute to the sediment loading, as approximately one-fourth of the area land use is agricultural. Cattle pastureland east of the City of Aragon is seen with high creek banks and this area floods during times of heavy rain. The cattle do have access to the creek banks, which could add to the bank erosion.

Near the City limits of Taylorsville, hay growing and pastureland are predominant. Outside the City, the farmers row crop cornfields with some buffer near the creek banks. Please see photographs 1. 0315010414 Euharlee Creek Polk and Bartow Counties (EPA): Hightower Mountain Rd spring headwaters, row cropping on right-hand side; 2. 0315010414 Euharlee Creek Polk and Bartow Counties (EPA): Taylorsville Rd cattle farm with some stream access; and 3. 3015010416 Euharlee Creek Hills Creek to Upstream Plant Bowen: Old Alabama Rd- Corn row crops.

Through the NRCS, many agricultural operators apply for the EQIP, Conservation Reserve Program cost-share programs to apply BMPs, riparian buffers, to lands to prevent erosion.

Previous Highway Construction

A year-round highway construction project by the State of Georgia DOT to widen US Highway 278 through the City of Rockmart and on to Cedartown, Georgia was completed recently (2005). The construction area near the Euharlee Creek has used silt fencing along with other best management practices (BMPs) to control sediment runoff. As with all projects in times of heavy rains even these BMPs are not totally effective. In the past this construction project may have contributed sediment through failure of BMPs.

Bare ground from construction activities

Within the City of Aragon, along the Portland Road, new home construction is on going, and this may contribute some sediment runoff to the creek at this point. City and County ordinances include Soil and Erosion Control Plans.

Commercial Sod Farming

Near the City limits of Taylorsville, the area around the creek banks is used for sod farming. This is a commercial activity and is separate from agriculture. If needed buffers and other measures are not established to prevent erosion, sod farming can lead to sedimentation.

Clear-Cutting Timber

SWAP (2003): Turbidity could be caused by land erosion due to disturbance activities such as clear-cutting timber (CVRDC). However, stakeholders report that loggers are compliant with regulations on logging roads and there is good enforcement of erosion and sedimentation regulations.

Field Survey Notes (Please see photographs in Appendix C)

0315010414 Euharlee Creek

Euharlee Creek Polk and Bartow Counties (EPA) Field Survey

Survey Team: Nancy Gribble

Date: June 17, 2005

Weather Conditions: Sunny, slight breeze, ~85 degrees F.

Stop #1: POLK COUNTY, Hightower Mountain Road, headwaters from a spring.

Small amount of flow seen, water clear, bridge has been replaced in past by three large culverts. Farm land to creek, row cropping to one side, pasture land fenced with cattle grazing and large horse farms see from main road.

Photograph taken: 1. 0315010414 Euharlee Creek Polk and Bartow Counties (EPA): Hightower Mountain Rd spring headwaters, row cropping on right-hand side.

Stop #2: Government Farm Road Bridge

Area somewhat used as a dump area to drop off old washing machine and other trash near the creek banks. Row cropping to south side of road, north side is pasture with cattle. Someone has used silt fencing to prevent soils from entering the stream. Good tree buffer to creek on both banks. Birds were seen along the creek bank, could be possible beaver activities in the area due to logs piled up downstream.

Stop #3: Seaborn Jones (Wayside) Park in Rockmart, part of the downtown recreation area with the Silver Comet Trail (bike and walking path) along the creek. Swimmers seen in water. Drains water from the City off downtown impervious areas, farm pasture to one end.

Stop #4: Off Elm Street, Euharlee Creek seen from the City of Rockmart's Water Treatment Plant (drinking water source) is located across from the Silver Comet Trail. Drains areas of City's impervious parking lots and streets, along with the recreation fields.

Euharlee Creek Polk and Bartow Counties (EPA) Field Survey...continued survey

September 22, 2005

Survey team: Nancy Gribble

Stop # 1: Polk County off Rockmart City Limits at Vinson Mountain Road

Could not see a stream or tributary to the Euharlee, but the area was cleared and gated for the Georgia Slate Mine. Consisted of open land with no cover. The sign posted read: GA Slate Mine Site, SM 423-36

Sediment may possibly wash to the tributary and to the Euharlee Creek before it reaches Rockmart City limits.

Stop #2: South Marble Street, Rockmart
Location of the Rockmart Slate Corporation, 480 S. Marble Street
Phone: 770-684-6583
Could not see the operation from the road.

Euharlee Creek Polk and Bartow Counties (EPA) Field Survey...continued survey

Survey team: Nancy Gribble
Date: June 21, 2005

Weather Conditions: Partly cloudy to sunny, heavy rainfall the night before, early morning rain also, ~74 degrees F.

Stop# 4: City of Aragon Highway 101 bridge (2nd bridge over creek going north)
Water appearance was muddy to clear, rapid flow. The area is downtown impervious roads and parking lots, pasture land fenced with cattle 1/10th before the first bridge. Good tree buffer along both banks.

Stop #5: Taylorsville Road, cattle farm
Euharlee Creek meandering through the property, cattle grazing in fenced pastures, bank height very high in places, cattle can access the creek in several places.
Photograph taken: 2. 0315010414 Euharlee Creek Polk and Bartow Counties (EPA): Taylorsville Rd cattle farm.

Stop#6: Taylorsville Road, bridge
Water appearance was muddy, good flow, after rains, good tree buffer on both sides of the creek. Downstream the creek flows past a mowed area on one side. Cattle seen in the near pasture.

Euharlee Creek Hills Creek to Upstream Plant Bowen Field Survey

Survey Team: Nancy Gribble
Date: June 15, 2005

Weather Conditions: Sunny to bright sunshine, slight breeze, ~ 88 to 92 degrees F. No rain in last 24 hours, but heavy rains up to two days before survey.

Stop # 1: Bridge crossing Co. Rd 624, Taylorsville, GA, just off downtown area
Creek was muddy (tan) in appearance, running to somewhat clear in spots. Moderate flow. Area drains downtown and agriculture areas along creek used for sod farming, pasture, and hay growing.
Area on upstream side shows sandy bars coming from banks edge and appears to be used as swimming area by locals.

Stop #2: Old Alabama Road bridge crossing. Creek was muddy (tan) in appearance, moderate flow, some log debris. Small farm house in area, lots of farming, row crops of cotton, soybeans, wheat straw, corn. Sediment probably from crop planting near creek area. Some tree buffer along the banks.

Photograph taken: 3. 3015010416 Euharlee Creek Hills Creek to Upstream Plant Bowen: Old Alabama Rd- Corn row crops.

Stop#3: Covered Bridge Road @ the City of Euharlee. Creek was muddy (tan) in appearance to clear in some areas, Osborne Park runs along downstream side of bridge, upstream area is the historic covered bridge area and mowed down to the creek as a recreational area in the City. Located 1 mile north of Plant Bowen.

Area is single-family residential and some apartments in the several block area.

To the extent possible, identify sources and quantify the extent of pollution in the stream segment for each of the parameters listed in Table 2 and evaluate the likely impact on the parameter load to the stream. This should follow research performed and described in preceding narrative and should correct or add information to the TMDLs. **The SOURCES SHOULD BE RANKED** from those having the most impact to those having the least impact. The estimated extent of contribution can be expressed as the area of the watershed affected, the stream miles affected, or the number of activities contributing to the problem. The magnitude of contribution should be estimated to be large, moderate, small, or negligible.

Table 3. CONCLUSIONS MADE OF POTENTIAL SOURCES OF STREAM SEGMENT IMPAIRMENT

Euharlee Creek, Hills Creek to Upstream Plant Bowen

PARAMETER 1	POTENTIAL SOURCES	ESTIMATED EXTENT OF CONTRIBUTION	ESTIMATED MAGNITUDE OF CONTRIBUTION	COMMENTS
Biota (Sediment)	Agricultural: Pasture, Stream Access and Row Cropping	Throughout	Moderate	No one source stands out; it may be a compilation of all sources
Biota (Sediment)	Commercial Sod Farming	Near the City limits of Taylorsville	Moderate	

Euharlee Creek, Polk and Bartow Counties

PARAMETER 1	POTENTIAL SOURCES	ESTIMATED EXTENT OF CONTRIBUTION	ESTIMATED MAGNITUDE OF CONTRIBUTION	COMMENTS
Biota (Sediment)	Land disturbing activities	Throughout	Moderate	2003 SWAP: Turbidity could be caused by land erosion due to disturbance activities such as building sites (CVRDC). Moderate rating- possibility of runoff during new home construction if E&S controls are not maintained.
Biota (Sediment)	Clear-cutting timber	Polk County segment	Moderate	2003 SWAP: Turbidity could be caused by land erosion due to disturbance activities such as clear-cutting timber (CVRDC). Stakeholders: Good enforcement of E & S ordinances
Biota (Sediment)	Commercial Sod Farming	Near the City limits of Taylorsville	Moderate	
Biota (Sediment)	Previous Highway Construction	Highway widening and bridge construction over Euharlee Creek, US Highway 278 through the City of Rockmart	Moderate	Mitigated by mandatory E & S controls
Biota (Sediment)	Agricultural: Pasture, Stream Access and Row Cropping	Throughout, especially if flooding occurs	Moderate	East of Aragon: Pastures. Taylorsville area: hay and pastureland. EQIP measures in place in this watershed.

V. STAKEHOLDERS

PUBLIC INVOLVEMENT AND THE ACTIVE PARTICIPATION OF STAKEHOLDERS is essential to the process of preparing TMDL implementation plans and improving water quality. Stakeholders can provide valuable information and data regarding their community, impaired water bodies, potential causes of impairments, and management practices and activities which may be employed to reduce the impacts of the causes of impairment.

Describe outreach activities to advise and engage stakeholders in the TMDL implementation plan preparation process. Describe the stakeholder group employed or formed to address the impaired segments in the watershed. Summarize the results of the number of attendees and meetings and describe major findings, recommendations, and approvals.

Stakeholder Determination

Stakeholder lists were developed by reviewing lists of stakeholders contacted and involved in previous TMDL projects and in Source Water Assessment Projects done by the Coosa Valley RDC. Other stakeholders were added as they came forward or through word of mouth were introduced to the process. As well, other stakeholders were contacted and asked to participate, if they had not already been listed. Stakeholders were informed of the process and invited to participate, and to attend informational sessions, by mass mailings.

The Coosa Valley Regional Development conducted several TMDL informational and stakeholder public meetings:

May 17, 2005 TMDL Stakeholder Meeting held at the Forum in Rome, Georgia for the streams in the Coosa Basin (27 attendees)

August 30, 2005 TMDL Stakeholder Meeting held at Red Top Mountain state park & Lodge, Cartersville, Georgia for the streams in Bartow/Gordon/Paulding/Polk/Pickens County areas (20 attendees)

October 18, 2005 Fall Workshop-Northwest Georgia Regional Water Resources Partnership held in Dalton, Georgia. Workshop title: CLEAN WATER the TMDL Link, A Toolbox for Improving Water Quality. Coosa Valley Regional Development Center & North Georgia Regional Development Center had two separate breakout sessions on the TMDL Implementation Plans for Stakeholder Interest (73 attendees)

December 7, 2005 TMDL Stakeholder Meeting held in Calhoun, Georgia for the Bartow/Gordon/Paulding/Polk/Pickens counties. (6 attendees)

Potential stakeholders were also contacted individually and through groups such as the Georgia Poultry Federation and the Rolling Hills Resource Conservation and Development Council.

The Bartow County Stakeholder Advisory Group (BCSAG) was formed in January 2005 for the purpose of establishing and directing stream water quality monitoring and outreach efforts to address nonpoint source pollution. Stakeholders in this group, representing Bartow County, Cities of Cartersville and Euharlee, and government agencies, have worked together previously on watershed assessment and source water assessment plans as well as other environmental and water quality efforts.

This group met in January 2006 to review the draft TMDL Implementation Plans for watersheds in the county and to discuss monitoring and outreach efforts. Two subcommittees were formed: One to review stream monitoring data for these watersheds and to implement additional monitoring as needed; and the second to begin septic system maintenance outreach to homeowners.

The Polk County Stakeholder Advisory Group met February 14th, 2006 to review the draft TMDL Implementation Plans and to assess future directions for the implementation of the plans.

Stakeholder Meeting for Bartow/Gordon/Paulding/Polk/Pickens Counties SubBasin Comments

Stakeholders had the following comments:

- Local governments do not have regulatory authority to control agriculture or septic processes.
- Georgia Poultry Federation sees the farmers and growers that are willing to be educated and implement BMPs.
- Bartow County farmers still allow cattle to get to streams to pollute.
- Septic systems are not generally regulated and the State of Georgia needs to be proactive and set regulations to control septic or agricultural sources. Are there any regulations where the owner who clears vegetation along a stream bank can be corrected?
- EPD should enforce their authority and not rely on local governments to do enforcement. Get the State to partner with local government. We do not understand why EPD lowered the buffer zone along streams. (N. B. EPD's response is, "The State of Georgia decreased the stream buffer requirements not the Georgia Environmental Protection Division.") The State of Pennsylvania requires on-site septic systems to be regulated.
- From jurisdiction to jurisdiction, we need to work together to understand how to implement the TMDL process.
- Speaking from the poultry-agricultural issues, getting farms to operate effectively and well managed will benefit local governments. Do not over regulate farmers.
- The need is great to get the TMDL information and assure accuracy. Cities and governments are regulated on accurate information.
- Make sure standards that are used to regulate streams are correctly identifies as to which ones actually impact human health.
- Can 319 grants are used? Can the money be funneled through the RDCs?
- We need to use a comprehensive approach to onsite septic systems where there are no sewer systems?
- How do we develop BMPs when the sources are not known?

Stakeholder Advisory Group Comments- January 31, 2006

Stakeholders introduced themselves; those present included Gene Camp, Bartow County Water Department, Pam Robinson, Bartow County Health Department, Steve Bradley, Bartow County Administrator, Lamont Kiser, Bartow County Engineer, Cindy Haygood, Rolling Hills RC&D, Curt Gervich, Etowah Habitat Conservation Plan, Edmund L. Mullinax, City of Cartersville, Kathy Floyd, Bartow County Extension Service, Katie Knowles and Jim Shinall, USACE, and Jim Stafford, City of Cartersville, and Bobby Gay, City of Euharlee Code Enforcement, were present.

Jill Joss and Julie Meadows, CVRDC, introduced the TMDL Implementation Plan process.

Jill Joss presented a summary of discussion from previous meetings including data, sampling, impairment sources, management measures, input, and concerns of local governments, agriculture, landowners and individuals.

Julie Meadows reviewed management measures in draft TMDL Implementation Plans (TMDLIPs) for Pine Log Creek (HUC-10 0315010207); Oothkalooga Creek (HUC-10 0315010302); Pumpkinvine Creek (HUC-10 0315010411); Raccoon Creek (HUC-10 0315010412); Etowah River (HUC-10 0315010413); Euharlee Creek (HUC-10 0315010414); Etowah River/Two Run Creek (HUC-10 0315010415); and Silver Creek (HUC-10 0315010416).

Stakeholders suggested comments and additions to the management measures as follows:

Stakeholders asked that the Etowah Habitat Conservation Plan language be included in management measures with applicable ordinances for participating jurisdictions. Suggested that sewer expansion might not be the way to go, suggesting improvements to septic systems instead.

It was stated that the Poultry Waste Management Program district does not extend to Bartow County, and asked that the Continuous Conservation Reserve Program be included as it includes measures such as fencing livestock out of streams and provides up to a 90-10% cost-share, as well as the Conservation Reserve Program which includes erosion control measures.

It was stated that the County's new Notice of Intent had been approved by the EPD and over 30 BMPs for stormwater management should be included. It was clarified that land disturbing permits are obtained through the County. It was clarified that the Greenspace Committee has purchased several greenspace lots and recommended that those acquisitions be included, as well as striking percentages from language that described Committee efforts. Negotiations are ongoing for further greenspace.

Sewer systems were discussed further: Lot size and configuration were listed as problematic, encouragement of dense enough development to warrant water and sewer was mentioned.

It was stated that Bartow County had been the first to implement a DVD education outreach program for new septic system owners in 2004 and it was now statewide. The Health Department can only check systems if there are complaints, which are sometimes received from landowners or from surveys done by the COE at Lake Allatoona. New regulations for septic system installation recently introduced.

How to get the information out to those getting new permits? A possibility might include getting the word out through water utilities, sending out information to those not on sewer.

It was stated that there is no mandatory update or management of septic systems; that there should be additional public education.

Suggestions were made that the State be more proactive to establish regulations for septic systems at the State level. Education on maintenance of systems is key. Resale of homes with septic systems is also an issue.

Sheri Henshaw, director of Keep Bartow Beautiful, was unable to be present but had sent information about outreach programs that Keep Bartow Beautiful is coordinating. These programs are detailed in the outreach section of the TMDL Implementation Plans for watersheds in

Bartow County and include the following projects: Etowah River Cleanup; Environmental education including Teacher Training for Waste In Place, Project WET (Water Education for Teachers); Enviroscope (illustrates non-point source pollution in the classroom using tabletop model); Stormwater education in schools; Development of a speaker's bureau to present stormwater issues to civic groups; and Adopt-A-Stream. Proposed projects include a homeowner's workshop on maintaining septic tanks, including the topics "Different Functions of Septic Tanks; How They Should Function; Common Causes of Failure; Maintenance For Longevity; Potential Contaminants in the Effluent; and Site Limitations"; a workshop on rain gardens for stormwater catchment, and cooperative development of a demonstration rain garden at Red Top Mountain State Park with signage.

A grant program was mentioned in rural Kentucky through PRIDE (Personal Responsibility in a Desirable Environment) for low-income homeowners to connect to existing sewer or install a permitted septic system; a possibility of a similar pilot project in this area.

Sampling was discussed. Previous and current sampling sites (EPD, USGS) were reviewed. Future or ongoing sampling was discussed especially for the tributary to Petit Creek segment and the Euharlee. Previous sampling data for all watersheds were requested for further study.

It was remarked that errors in data may have caused pristine streams may have been listed in error.

Funding sources were discussed by all. Information on EPD's 319 h grant requirements for 2006-2007 will be announced in early February and relayed to stakeholders.

The Northwest Georgia Water Resources Partnership was introduced for regional water planning purposes.

A subcommittee was formed to review sampling data, including:

- Steve Bradley, Bartow County Administrator
- Ed Mullinax, City of Cartersville
- Gene Camp, Bartow County Water Department
- Sheri Henshaw, Keep Bartow Beautiful
- Katie Knowles, USCOE Allatoona Dam
- Jill Joss, Coosa Valley RDC

A subcommittee was formed to plan septic system outreach, including:

- Gene Camp, Bartow County Water Department
- Bobby Gay, City of Euharlee Zoning and Code Enforcement
- Pam Robinson, Bartow County Environmental Health
- Kathy Floyd, Bartow County Extension Service
- Cindy Haygood, Rolling Hills RC&D
- Jim Shinall and Katie Knowles, USCOE Allatoona Dam
- Julie Meadows, Coosa Valley RDC

The meeting was adjourned.

Amended February 2, 2006.

The **Polk County Stakeholder Advisory Group** was formed in February 2006 for the purpose of establishing and directing stream water quality monitoring and outreach efforts to address nonpoint source pollution. Stakeholders in this group represented each municipality in the watershed as well as the county extension service, environmental health department, Polk County Board of Commissioners, Farm Bureau, and dairy and poultry farmers.

The initial meeting of the Polk County Stakeholder Advisory Group was held on February 14, 2006. If unable to attend, stakeholders were contacted individually. The group reviewed the draft plans and made suggestions and corrections. Possible monitoring of the watersheds was discussed, as was outreach or education for implementation of the plan. Outreach to stakeholders will be ongoing.

Meeting Summary, Polk County TMDL Implementation Plan Advisory Group, February 14, 2006

Stakeholders introduced present included Jarrell Cagle of Cagle Farms and Floyd County Farm Bureau; Irwin Bagwell of Bagwell Dairy; Donna Atkins, Superintendent, City of Cedartown Water and Sewer; Polk County Commissioner Mark Sullins; Ken Hutchins, Polk County Environmental Health; Ricky Ensley, Polk County Extension; Richard Martin, Director, Polk County Water Authority; a representative of Polk County Water Authority; David Howerin, Coosa Valley RDC; Jill Joss, Coosa Valley RDC; and Julie Meadows, Coosa Valley RDC.

The Implementation Plan for Big Cedar Creek (HUC-10 0315010502) was reviewed and discussed.

Land usage reflects a change in row crops due to increasing land values. The farms in the area are changing from row cropping to pasture (in fescue grass) and beef cattle. Brooks Brothers Farms in Floyd County is no longer a CAFO due to a decrease in number of animal units. Numbers of dairies in Polk County are decreasing.

The watershed assessment for Big Cedar Creek, focusing on nutrient management plans for poultry operations, resulted in a 319 c proposal; stakeholders asked that the plans be changed to show the most recent update on this project. It is believed to be waiting on funding through the 2002 Farm Bill.

For the TMDL Implementation Plan for the Euharlee Creek watershed, HUC-10 0315010414, stakeholders mentioned that the EQIP program is widely used for the area's poultry and cattle operations. Through this program or through the permitting process for AFO status operations, certain farmers are required to develop Soil and Erosion Control Plans for their farms. Farms are checked yearly to see that they have implemented those measures so that they remain in compliance for funding.

Sources were discussed including dirt roads and logging in the area and wildlife. There is good enforcement of erosion and sedimentation ordinances in Polk County.

The County is in the process of rehabilitation for its WPCP in Aragon. Funding is an issue.

Wildlife in the area is a definite source of fecal coliform bacteria.

Cedartown is monitoring as part of its watershed assessment on Big Cedar Creek.

There is interest in looking at additional monitoring in order to delist the creeks if it is economically feasible. A Sampling and Quality Assurance Plan will need to be developed in order to do this monitoring. The cost of monitoring on Big Cedar and on Euharlee Creeks was discussed, specifically to have Fox Environmental LLC to do fecal coliform testing on the Big Cedar. The company is currently conducting a watershed assessment for Cedartown.

Educational materials for septic system maintenance and outreach will be provided to stakeholders, as well as costs of testing for fecal coliform to the Polk County Water Authority and to Environmental Health.

List the watershed or advisory committee members of the stakeholder group for this segment in the following table.

Table 4. COMMITTEE MEMBERS

NAME/ORG	ADDRESS	CITY	STATE	ZIP	PHONE	E-MAIL
Jimmy Hughes, Director City of Rockmart Public Works	P.O. Box 231	Rockmart	GA	30153	(770) 684.2360	jimmy.hughes@rockmart-ga.gov
Craig Taylor City of Rockmart, Code Enforcement	P.O. Box 231	Rockmart	GA	30153	(770) 684.2720	craig.taylor@rockmart-ga.gov
Ken Hutchins Polk County Environmental Health	125 East Ware Street	Cedartown	GA	31025	(770) 749-2270	krhutchins@dhr.state.ga.us
Commissioner Mark Sullins Polk County Board of Commissioners	44 Rolling Hills Road	Cedartown	GA	30125	(770) 748-7674	sullinsent@bellsouth.net
Richard Martin General Manager, Polk County Water Authority	1381 Rockmart Hwy, PO Box K	Cedartown	GA	30125	(770) 749-2132	pch20@bellsouth.net
Ricky Ensley Polk County Extension Agent	20 North Main Street	Cedartown	GA	30125	(770) 749-2142	Rensley@uga.ga
Cindy Haygood Coordinator, Rolling Hills Regional Conservation and Development Council	P.O. Box 1550	Dallas	GA	30132	(770) 505-4288	Cindy.Haygood@ga.usda.gov
Keith Gilmer Georgia Soil and Water Conservation Commission	700 East 2nd Ave. Suite J	Rome	GA	30161	(706) 295-6131	K_gilmer@gaswcc.org
John Loughridge Georgia Soil and Water Conservation Commission	700 East 2nd Ave. Suite J	Rome	GA	30161	(706) 295-6131	J_loughridge@gaswcc.org
Machelle Simmons USDA Natural Resource Conservation Service	717 South Wall Street Suite 1	Calhoun	GA	30701	(706) 629-2582 X 3	Machelle.simmons@ga.usda.gov
Steve Bradley County Administrator	135 West Cherokee Avenue Suite 241	Cartersville	GA	30120	(770) 387-5030	bradleys@bartowga.org
Lamont Kiser Bartow County Engineer	135 West Cherokee Avenue Suite 241	Cartersville	GA	30120	(770) 387-5067	kiserl@bartowga.org
Gene Camp Bartow County Water System	P.O. Box 850	Cartersville	GA	30120	(770) 387-5170	campg@bartowga.org
Kenneth M. Akins Etowah Indian Mounds Site Manager	813 Etowah Indian Mound Road, S.E.	Cartersville	GA	30120	(770) 387-3747	Etowah_mounds@dnr.state.ga.us
Jim Stafford City of Cartersville Water Department	P.O. Box 1390	Cartersville	GA	30120	(770) 387-5653	jstafford@cityofcartersville.org

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Kathy Floyd County Extension Agent	320 W. Cherokee Ave. Room 112	Cartersville	GA	30120	(770) 387-3747	Kpfloyd@uga.edu
Sherri Henshaw Coordinator, Keep Bartow Beautiful	P.O. Box 786	Cartersville	GA	30120	(770) 387.5167 Fax: 770.606.2382	henshaws@bartowga.org
Bobby Gay Zoning and Code Enforcement	30 Burge's Mill Road	Euharlee	GA	30145	(770) 386-1542 ext 210	code@euharlee.com
Joe Cook Executive Director, or Katie Owens Program Coordinator Coosa River Basin Initiative	408 Broad St.	Rome	GA	30161	(706) 767-0497	crbi@coosa.org keady@coosa.org
Curt Gervich Etowah Habitat Conservation Program	P.O. Box 287	Acworth	GA	30503	(678) 801-4013	curt@etowahhcp.org

In Appendix A, list the names, addresses, telephone numbers, and e-mail addresses for local governments, agricultural or commercial forestry organizations, significant landholders, businesses and industries, and local organizations including environmental groups and individuals with a major interest in this watershed.

VI. MANAGEMENT MEASURES AND ACTIVITIES

Describe any management measures or activities that have been put into place or will be put into place including regulatory or voluntary actions or other controls by governments or individuals that specifically apply to the pollutant that will help achieve water quality standards. Include who will be responsible for the measure, how it will be funded, the status, the date it will be or was initiated, and a short description of how effective the measure is or will be.

Table 5. MANAGEMENT MEASURES AND ACTIVITIES

MEASURE	RESPONSIBILITY	DESCRIPTION	SOURCE OF FUNDING	STATUS	ENACTED/IMPLEMEN TED	EFFECTIVENESS (Very, Moderate, Weak)
Federal Clean Water Act, Section 305(b) and 303 (d) Amended 1977	USEPA, Georgia DNR EPD, Bartow and Polk Counties and the Cities of Rockmart and Aragon	The congressional objective of the Clean Water Act "is to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." Section 305 (the <i>National Water Quality Inventory</i>) requires states to report progress in restoring impaired waters to EPA on a Biennial basis. Section 303(d) requires states to identify 'impaired' waters, submit a list to EPA every two years, and develop TMDLs for these waters	Federal, Georgia	Enforced	1972; amended 1977	
Georgia Water Quality Control Act (OCGA 12-5-20)	Georgia Rules and Regulations for Water Quality Control, Chapter 391-3-6	Law prohibiting discharge of excessive pollutants (sediments, nutrients, pesticides, animal wastes, etc.) into waters of the State in amounts harmful to public health, safety, or welfare, or to animals, birds, or aquatic life or the physical destruction of stream habitats. Law authorizing Georgia EPD to control water pollution, eliminate phosphate detergents, and regulate sludge disposal; to require permits for agricultural ground and surface water withdrawals; to prohibit situation of state waters by land disturbing activities and require undisturbed buffers along state waters; to require land-use plans that include controls to protect drinking water supply sources and wetlands; to require river basin management plans on a rotation schedule for all major river basins.	Federal, Georgia, Bartow and Polk Counties and the Cities of Rockmart and Aragon	Enforced	11/1964	
GA Growth Planning Act (OCGA 12-2-8)	GA DNR, Department of Community Affairs, Bartow and Polk Counties and the Cities of Rockmart and Aragon	Authorized GA DNR to develop minimum planning standards and procedures that local jurisdictions could adopt and enforce pertaining to the protection of river corridors, mountaintops, water supply, watersheds/reservoirs, groundwater recharge areas, and wetlands. Silvicultural activities may be exempted from permitting requirements provided the activity complies with BMPs.	State			
Georgia Planning	Bartow and Polk	Wetland protection, river corridor protection, etc.	General Fund	Enforced	1989	

Act. Part V Environmental planning measures. GA DNR EPD Rules for Environmental Planning Criteria (Ch. 391-3-16)	Counties	Minimum criteria. Requires 100' buffer on protected rivers. Water supply watershed protection also requires 100' stream buffers.				
Georgia Erosion and Sedimentation Control Act, Construction Permit, 2003 Amendment	Bartow County, City of Rockmart, Georgia DNR/ EPD, Georgia Soil and Water Conservation Commission	Municipalities certified as Local Issuing Authority for land-disturbing activities. Requires Erosion and Sedimentation Control Plan incorporating best management practices plus "Qualified Personnel" Training and Certification Program adopted from Georgia Soil and Water Conservation Commission. Certification of on-site "Qualified Personnel" to ensure proper design, construction, and maintenance of standard E & S control measures and storm water management practices.	Bartow County, City of Rockmart	Enforced	2003	
Georgia Erosion and Sedimentation Control Act (OCGA 12-71-1)	Bartow County, Polk County, Cities of Rockmart, Taylorsville and Aragon Georgia DNR/ EPD, Georgia Soil and Water Conservation Commission	Restricts activity within 50 feet of streams that support or could support trout, and 25 feet of all other streams and lakes. This includes intermittent streams, which do not run year-round, as well as perennial streams	State, counties	Enforced	2003; EPD rule revised 1/2005	
GA Growth Planning Act (OCGA 12-2-8)	GA DNR, Department of Community Affairs, Bartow County	Authorized GA DNR to develop minimum planning standards and procedures that local jurisdictions could adopt and enforce pertaining to the protection of river corridors, mountaintops, water supply, watersheds/reservoirs, groundwater recharge areas, and wetlands. Silvicultural activities may be exempted from permitting requirements provided the activity complies with BMPs.	State			
Erosion and Sedimentation Control Training and Certification	Georgia Soil and Water Conservation Commission, GA EPD, Rolling Hills RC&D, Bartow County and the Cities of Rockmart and Aragon	House Bill 285 requires state certification in Erosion and Sedimentation Control for anyone involved in the following activities: land development, design, review, permitting, construction, monitoring, inspection, or any land-disturbing activity in Georgia (Georgia Soil and Water Conservation Commission, 2005). The GSWCC also has updated requirements for E&SC plans to be submitted with each project. Three levels of certification are offered through the Rolling Hills Regional Conservation and Development Council (RC & D) and Chattahoochee Technical College. Bartow has held class also, level 1A.	Georgia Soil and Water Conservation Commission, GA EPD, Bartow County	Enforced	Certification by end of 2006; One class held in Bartow County 12/05	Very
Etowah Habitat	US Fish and Wildlife	SOP includes six elements: 1. Two required	Bartow County,	In review		

Conservation Plan Standard Operating Procedure (SOP) for Erosion and Sedimentation Control	Service, University of Georgia, Kennesaw State University, Georgia Conservancy, Bartow County	preconstruction meetings- one, an early meeting with the site planner and relevant E&S professionals to identify problem areas before site plans are Finalized, and two, a subsequent meeting with the utilities, engineers, developer, E&S installation crew, and owner to review where and how E&S control measures will be installed; 2. Semi-monthly reporting requirements; 3. A bonding program; 4. A minimum inspection frequency requirement; 5. A brief E&S checklist for building inspectors; and 6. Designation of emergency on-call E&S personnel from each development. Requires updates to ordinances in participating jurisdictions.				
Construction Storm Water Discharge NPDES Permit	Georgia DNR/ EPD	General storm water permit for stand-alone construction sites; infrastructure permits; and common developments. Requires implementation of Erosion, Sedimentation and Pollution Control Plan plus monitoring of discharge for compliance with Georgia's in-stream water quality standards.	State	Enforced		
Industrial Storm Water Discharge NPDES Permit	Georgia DNR/ EPD	General storm water discharge permit for manufacturing facilities; mining, oil, and gas operations; hazardous waste treatment; storage or disposal facilities; recycling centers; steam electric power generating facilities; transportation facilities; domestic sewage or sewage treatment. Requires implementation of Storm Water Pollution Prevention Program. May require storm water monitoring program targeting discharges into/near 303 (d) listed waters.	State	Enforced		
Notice of Intent coverage of small MS4 under NPDES Phase II general permit	Bartow County	NOI approved by EPD in 2005. Includes Best Management Practices to reduce non-point source pollution in the county. NOI approved in 2005.	Bartow County	Enforced	2005	Very
Phase II NPDES Storm Water Permit for Small MS4	Georgia DNR & EPD, Bartow County	Bartow NOI Approved in 2005. Requires local jurisdictions to develop a comprehensive Storm Water Management Program (SWMP) to include 1. Public Education and Outreach; 2. Public Participation and Involvement; 3. Illicit Discharge Detection and Elimination; 4. Construction Site Storm Water Runoff Control; 5. Post-Construction Storm Water Management in New Development and Redevelopment; 6. Pollution Prevention and Good Housekeeping related to municipal operations, reporting, and monitoring and program implementation. Bartow County is in process of implementing these best management practices.	Bartow County	Enforced	2005	
Watershed Assessment and	Bartow County	Required for new or expanding wastewater treatment discharge permits. Internal assessment of storm water	Bartow County	Enforced	2005	

Protection Plan for Phase II NPDES Permitting		pollution prevention plan (map of facilities and responsibilities for upkeep): Reference TMDL implementation plans (TMDLIP) and water quality strategies for non-point source pollution elimination. Drives local land use planning. Georgia EPD guidelines include Management Measures Specific for 303(d) listed stream segments in the impacted watershed. WPP to reference TMDLIP already developed. Where no TMDLIP developed, WPP to outline management/ monitoring measures targeting listing violations; identify authority responsible for implementing the above management/ monitoring measures; indicate possible funding sources; establish current status and/or date measures will be initiated, and expected effectiveness; and design educational and outreach activities for intended audiences.				
Sanitary Sewer Maintenance Program	Bartow County	Sanitary Sewer system inventory and inspection (mapping, television inspections); infiltration and inflow identification and reduction (flow monitoring, smoke testing); sewer line rehabilitation (pipe bursting, relining, cleaning) and manhole rehabilitation.	Bartow County	Enforced	Ongoing	
District-wide Watershed Management Plan	Georgia DNR/EPD, Metropolitan North Georgia Water Planning District (SB 130), Bartow County, Cartersville	Bartow has adopted five of six Model Storm Water Management Ordinances that address Post Development Storm Water Management for New Development and Redevelopment, Conservation Subdivision/ Open Space Development, Illicit Discharge and Illegal Connection, Litter Control, and Stream Buffer Protection as required by Georgia EPD in MS4 Phase II Permit Renewals. The District Plan also addresses municipal good housekeeping practices to control non-point source pollution; improved enforcement of erosion and sedimentation control; storm water management for transportation projects; and education and public awareness activities.	Bartow County, Cartersville	Enforced	Bartow, 12/2005	
Watershed Protection Tools Addressing Poor Riparian Buffers	Bartow County and stakeholders	Riparian Buffer Ordinance (Stream Buffer Protection Ordinance of 50'); Stream Restoration; Stream Mitigation Bank; Conservation Subdivision Ordinance	Bartow County	Enforced	Compliant with or exceeds Metro N. GA District model ord. 12/07/05	Very if enforced
Watershed Protection Tools Addressing Point Sources	Bartow County and stakeholders	Improved NPDES permits; Enforcement of existing permits	Bartow County	Enforced	Compliant with or exceeds Metro N. GA District model ord.	Very if enforced

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					12/07/05	
Watershed Protection Tools Addressing Impervious Surfaces and Storm Water Runoff	Bartow County and stakeholders	Relevant Storm water Management and Conservation Subdivision Ordinances; Conservation Planning	Bartow County	Enforced	Compliant with or exceeds Metro N. GA District model ord. 12/07/05	Very if enforced
County Municipal Ordinance	Bartow County/ Code Enforcement Office	Post-Development Stormwater Management Ordinance with stream buffer limits; Litter Control Ordinance; Conservation Subdivision ordinance; Riparian Buffer ordinance; Greenspace Ordinance	General fund	On-going	January 2005	Very
Federal Endangered Species Act of 1973	Department of the Interior, US Fish and Wildlife Service	Provides a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved, to provide a program for the conservation of such endangered species and threatened species, and to take such steps as may be appropriate to achieve those purposes	USFWS	Enforced	1973	Very if enforced
Etowah Habitat Conservation Plan Stormwater Ordinance with Better Site Design Guidelines and Addendum: Runoff Limits, Priority Area Protection and Maintenance of Stormwater Facilities	US Fish and Wildlife Service, Bartow County, City of Cartersville	Additions to Metropolitan North Georgia Water Planning District Model Storm Water Management Ordinance addressing impervious surface runoff including 1. Clarification of bond and fee requirements; 2. Strengthening maintenance and inspection requirements, 3. Encouraging the use of Better Site Design credits, with additional performance standards for high priority habitat areas including section five, Model Runoff Limits Ordinance. This establishes requirements for runoff infiltration system installation and maintenance. Development of Runoff Limits Manual in progress (2006) Engineering Specifications for Structural BMPs. Requires updates to ordinances in participating jurisdictions.	Bartow County, City of Cartersville	Enforced	Compliant with or exceeds Metro N. GA District SW ord. 12/07/05	
Etowah Habitat Conservation Plan Stream Buffer Ordinance	US Fish and Wildlife Service, Bartow County, City of Cartersville	For those jurisdictions in the Metropolitan North Georgia Water Planning District, Additions are made to the district's Model Stream Buffer Ordinance addressing granting of variances. Requires updates to ordinances in participating jurisdictions.	Bartow County, City of Cartersville	Proposed	Compliant with or exceeds Metro N. GA District model ord. 12/07/05	
Etowah Habitat Conservation Plan Conservation Subdivision Ordinance	US Fish and Wildlife Service, Bartow County, City of Cartersville	For those jurisdictions in the Metropolitan North Georgia Water Planning District, changes made to the district's Model Conservation Subdivision Ordinance include requirement of site map analysis for all developments with open space plans, instruments of permanent protection, and a four-step design process specified;	Bartow County, City of Cartersville		Compliant with or exceeds Metro N. GA District model ord.	

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		and changes to primary conservation sites to be included in open space requirements including 100-year floodplain, 75-foot stream buffers, 25%-or-greater slopes, wetlands, endangered species habitats, and archeological sites. Requires updates to ordinances in participating jurisdictions. Places emphasis on protecting stream buffers and significant hydrological features..			12/07/05	
Etowah Habitat Conservation Plan Road Crossing and Culvert Design Guidelines	US Fish and Wildlife Service, Bartow County, City of Cartersville	Road Crossings Technical Committee is in the process of developing design guidelines for road crossings of stream and stream culverts to alleviate habitat concerns that pipe culverts limit fish movement in stream	Bartow County, City of Cartersville		In committee	
Etowah Habitat Conservation Plan Conservation Utility Line Crossing and Construction Recommendations	US Fish and Wildlife Service, Bartow County, City of Cartersville	Utility Crossings Technical Committee is in the process of developing design guidelines for utility stream crossings to reduce sedimentation and other habitat concerns resulting from erosion of land disturbed by utility activities	Bartow County, City of Cartersville		In committee	
Storm drain stenciling requirement	Bartow County	County ordinance requiring stenciling of storm drains by developers for new housing developments.		Enforced	2004	
Storm drain stenciling	Keep Bartow Beautiful	Volunteers stencil storm water drains in older residential developments		Voluntary	2004	
EPA Section 319 Non-point Source Implementation Grants	Georgia Department of Agriculture/ Georgia Environmental Protection Division for enforcement action	Funds distributed through a competitive process to public agencies, regional development centers, state colleges and universities, and state agencies.	Federal, State		Yearly	Varies with BMP or project
Georgia Best Management Practices	Georgia DNR/EPD	Informs those involved in the agriculture business of effective practices to minimize non-point sources of pollution	Georgia			Varies with BMP
Georgia's Best Management Practices	Georgia Forestry Commission (matters involving enforcement are generally referred to GA EPD)	GFC program to inform landowners, foresters, timber buyers, loggers site preparation and reforestation contractors and others involved with silvicultural operations about commonsense, economical effective practices to minimize nonpoint source and thermal pollution. GFC encourages and monitors compliance and conducts a complaint resolution program.				>75% when properly applied to site preparation and harvesting activities.
Georgia Forestry Commission Monthly BMP Assurance	Georgia Forestry Commission (matters involving enforcement are generally referred	In an effort to document "reasonable assurance" that water quality will be proactively protected during regular ongoing silvicultural operations, the GCF will offer a monthly BMP assurance examination of active sites. All	Federal and State			

Examination	to GA EPD)	active of ongoing sites will be identified either through monthly air patrol flights, courthouse records, riding the roads, notification or by landowners. Sites located within watersheds of specific biota (sediment) impaired streams will be given a higher priority to identify and conduct examinations.				
Memo to the Field: Application of BMPs to mechanical silvicultural site preparation activities for the establishment of pine plantations in the Southeast (Silviculture)	EPA/ US Army Corps of Engineers - (cases normally referred to GFC to make initial determination)	Identifies certain bottomland hardwood wetlands that should be subject to permitting if converting to pine plantations.	State			
Federal Farm Bill (Swampbuster, Ag)	US Department of Agriculture Natural Resource Conservation Service	Prohibits landowners participating in federal price support programs from converting forested wetlands to agriculture	Federal			
Partners for Fish and Wildlife	US Fish and Wildlife Services	This is a proactive, voluntary program that works with private landowners to restore fish and wildlife habitats on their land. The projects have several different focuses, but for the purpose of water quality the projects focus on stream and riparian restoration and restoration of rare species habitat.	Federal variable cost share			Effectiveness will vary with the specific application and must be individually determined.
Farm Bill 2002	United States Department of Agriculture / National Resources Conservation Services	Enhances long-term quality of our environment and conservation of our natural resources. This bill provides several opportunities for receiving grants to improve water quality.	Federal Cost-Share and Incentive Programs.			Effectiveness will vary with the specific application and must be individually determined.
Environmental Quality Incentives Program (EQIP)	Natural Resources Conservation Services	Voluntary program that provides technical and cost share assistance for protection of ground and surface water, erosion control, air quality, wildlife habitat, and plant health.	Federal 50% cost share with possible additional incentive payments			Effectiveness will vary with the specific application and must be individually determined.
Special Forestry/Wildlife Environmental Quality Incentives Program (EQIP)	Natural Resources Conservation Services	Special funds allocated out of the EQIP program that will address forest road erosion/water quality, plant health, and wildlife habitat. This program has a separate ranking for rewarding money from the regular EQIP program.	Federal 50% cost share with possible additional incentive payments			Effectiveness will vary with the specific application and must be individually determined.
Wildlife Habitat Incentives	Natural Resources Conservation	Provides technical and cost share assistance for the creation of high quality wildlife habitat. Habitats of	Federal 75% of cost of			Effectiveness will vary with the

Program (WHIP)	Services	special concern include riparian areas and endangered and threatened species habitat.	the installation of practice provided			specific application and must be individually determined.
Wetlands Reserve Program (WRP)	Natural Resources Conservation Services	Provides technical and financial assistance to landowners to enhance degraded wetlands degraded by farming or draining. There are three options with WRP to receive funds that have differing time agreements and easements resulting in different cost share. In all programs participants control access to the land, may lease or use land for hunting, fishing, and other passive recreational activities. Compatible uses are allowed as long as the do not degrade the wetland.	Federal (Farm Bill 2002) Cost Share 1. Permanent Easement :Pays appraised value of land (\$2,000/ acre cap) and 100% of costs of restoration. 2. 30-Year Easement: Pays 75% of appraised value of land and 75% of restoration costs. 3. Restoration Cost Share Agreement: Pays 75% of restoration costs, no easement on the property.			Effectiveness will vary with the specific application and must be individually determined.
Chapter 40-13-8 Animal Manure Handlers Rules of Georgia Department of Agriculture Animal Industry Division	Georgia Department of Agriculture	This requires that persons engaged in removing animal manure from livestock/poultry production areas, transporting animal manure on public roadways, or depositing animal manure to a premise other than its point of origin obtain a permit and follow rules to control animal disease, and outlines regulations for transportation, equipment and storage.	State			Effectiveness will vary with the specific application and must be individually determined.
Farm Bill 2002 Forestland Enhancement Program	Georgia Forestry Commission	The Forestry Commission has implemented best management practices on its lands to reduce sedimentation and erosion from silviculture practices. The Georgia Forestry Commission also provides education, technical and financial assistance through cost-share programs to private landowners especially in the Forestland Enhancement Program, a part of the 2002 Farm Bill.	Federal, State		Ongoing	Very
Federal Farm Bill 2002	United States Department of Agriculture/ Natural	Enhances long-term quality of our environment and conservation of our natural resources. This bill provides several opportunities for receiving grants to improve	Federal Cost-Share and Incentive		2002	Varies with BMP applied.

	Resources Conservation Service	water quality.	Programs			
Federal Farm Bill (Swampbuster Ag)	United States Department of Agriculture / National Resources Conservation Services	Prohibits landowners participating in federal price support programs from converting forested wetlands to agriculture.	Federal			
Conservation Reserve Program (CRP)	Natural Resources Conservation Services / USDA Farm Services Agency	Provides technical assistance, rental payments and cost share funding to address specific natural resource concerns including: protection of ground and surface waters, soil erosion and wildlife habitat. Eligible practices include tree planting, grassed waterways, wildlife habitat buffers, and shallow water area for wildlife and filter strips.	Federal, State, landowner	Cost-share	Ongoing	Varies
Continuous Conservation Reserve Program (CCRP)	Natural Resources Conservation Service	Conservation cost-share for best management practices such as fencing livestock out of streams; provides up to a 90-10% cost-share	Federal Annual rental payment for land taken out of production and 50% cost share for practice installation.	Cost-share	Ongoing	Varies with BMP applied.
Conservation of Private Grazing Land Program	United States Department of Agriculture / National Resources Conservation Services	This technical assistance will offer opportunities for: better grazing land management; projects for improving water quality include: protecting soil from erosive wind and water; conserving water; providing habitat for wildlife; sustaining forage and grazing plants.	Federal (Farm Bill 2002) This is not a Cost-Share Program.			Varies with BMP applied.
Conservation Security Program (CSP)	Natural Resources Conservation Services	This is the first program that rewards farmers and ranchers for high levels of environmental stewardship. Producers on cropland, orchards, vineyards, pasture and range may apply for CSP regardless of size, type of operation, or crops produced. Land in other cost share programs is not eligible. CSP will first be offered in watersheds with greatest potential for improving water quality, soil quality and grazing land condition. In 2005, the four watersheds of focus will be the Ichawaynochaway, Kinchagoonee-Muckalee, Middle Flint, and Upper Ochlockonee. An enhancement example is to install a riparian buffer.	Federal (Farm Bill 2002) Cost Share There is three tiers of involvement, which result in different expectations and cost share opportunities.			Effectiveness will vary with the specific application and must be individually determined.
Georgia Best Management Practices	Georgia Department of Agriculture / Georgia Environmental Protection Division for enforcement action.	Inform those involved in the agricultural business of effective practices to minimize nonpoint source pollution.	State			Varies with BMP applied.

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Section 319(h) Nonpoint Source Implementation Grant	Georgia Environmental Protection Division	Funds distributed through a competitive process to public agencies, regional development centers, State colleges and universities, and State agencies. Eligible projects include TMDL or Watershed Management Plan Implementation, BMP Demonstrations, and Information and Education.	Federal and State Cost Share Program. Recipient must provide 40% match.			Effectiveness will vary with the specific application and must be individually determined.
Environmental Quality Incentives Program (EQIP)	Natural Resources Conservation Services	Voluntary Program that provides technical and cost-share assistance for protection of ground and surface water, erosion control, air quality, wildlife habitat, and plant health. EQIP programs are in use in this watershed including prescribed grazing, fencing, nutrient management, and animal waste storage structures.	Federal (Farm Bill 2002) 50% Cost share with possible additional payments			
Rules and regulations for onsite wastewater management (Septic system permitting)	Bartow County Department of Public Health	Regulates through permits and inspections of on-site sewage management systems; requires plumbers and other maintenance operators to submit monthly logs of pump-outs and maintenance done to systems	Bartow County	Enforced	Ongoing	
Pollution Prevention Litter Removal	Bartow County Solid Waste Director	Remove litter from County roads and properties using labor from State correctional facilities	General Fund	Ongoing	January 2004	Very
Pollution Prevention Good Housekeeping for Municipal Operations	Bartow County	Insure all County facilities submit an NOI for industrial discharges; Assist each facility with development of a Storm Water Pollution Prevention Plan (SWPP); Educate and inspect those facilities	General Fund	Ongoing	December 2004	Very
Volunteer clean up activities	Sherri Henshaw Coordinator, Keep Bartow Beautiful	Volunteers for stream cleanup on River Cleanup Day. Trash cleanup on the Etowah River for this segment at Riverside Park	General Fund		October 31, 2005	Very
Municipal Ordinance	City of Aragon	Soil and Erosion Ordinance (Section 18 Article IV) applies to land disturbing activities of 1.1 acre or more, conforms to the State Manual for Erosion and Sedimentation, including buffers of 50 feet along primary trout streams, 25 foot buffers along streams, and 100 feet along designated trout streams. Wetland Protection Ordinance (Ord. 620), adopted 2002, regulates development activities in wetland areas. The City's Flood Damage Control Ordinance (Ord. No. 640), adopted 2002, will be updated. The City has its Litter Control Ordinance (Ord. No. 220, XXVII) adopted in 1987. The City's subdivision ordinance (2001) requires stormwater drainage structures.	General Fund	Enforced	2002; 2002; 1987; 2001	
Municipal Ordinances	Polk County	The county has a Floodplain Management/Flood Damage Prevention Ordinance revised in 2004, regulating construction on or near flood plains, and in its planning and zoning includes. Stormwater management		Enforced		Very if enforced

		and greenspace are briefly addressed in the County's planning and zoning regulations from 2004, specifically greenspace for recreational purposes in zoning for planned residential development sites, as well as 60' buffer requirements. A litter control ordinance was adopted in 1995. These ordinances are enforced by the County's Ordinance Enforcement Officer. Polk County has its Erosion and Sedimentation Control ordinance adopted in 1978, administered by the Polk County Ordinance Enforcement Officer.				
Get the Dirt Out	Coosa River Basin Initiative (CRBI)	Volunteer training program for construction site inspection, identification of failure to use BMPs in construction activities	CRBI is funded by donations, grants from foundations, and membership	Ongoing	Begun in March 2005	
Adopt-A-Stream, in conjunction with CRBI	Coosa River Basin Initiative	Water quality chemical and biological volunteer training and monitoring, stream clean-up, stream bank and habitat restoration, and visual stream surveys	CRBI is funded by donations, grants from foundations, and membership	Ongoing		
Georgia Better Back Roads	Rolling Hills RC&D	Program that funds projects where sealant treatment applied to dirt roads reduces erosion and silt build-up.	USDA NRCS	Proposed		
Municipal Ordinances	City of Euharlee Code Enforcement Officer	From the Metropolitan North Georgia Water Planning District Model Ordinances: the Euharlee Soil Erosion and Sediment Control Ordinance, including stream buffer requirements (January 2004). The other proposed ordinances which will be adopted by March 1, 2006 are as follows: Post-Development Stormwater Management, Floodplain Management, Conservation Subdivision/Open Space Development, Illicit Discharge and Illegal Connection, and Litter Control.	General Fund	Enforced	2004; 2006	
Adopt-A-Stream	In conjunction with Coosa River Basin Initiative (CRBI)	Water quality chemical and biological volunteer training and monitoring, stream clean-up, stream bank and habitat restoration, and visual stream surveys	Volunteer	Ongoing		Moderate- Cannot test for fecal coliform
Stormwater Best Management Practices	Polk County Public Works	Implement recommended Best Management Practices to address Biota (Sediment)/ Habitat and other pollutants as detailed in the Phase II MS4 Stormwater Management Plan to include 1. Public Education and Outreach; 2. Public Participation and Involvement; 3. Illicit Discharge Detection and Elimination; 4. Construction Site Storm Water Runoff Control; 5. Post-Construction Storm Water Management in New Development and Redevelopment; 6. Pollution Prevention and Good Housekeeping related to municipal operations, reporting, monitoring and program implementation	General Fund	Recommend 2006		May vary
Stream Buffer	Polk, Bartow Counties	Explore incentives for developers (such as density		Recommend		May vary

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Installation and Maintenance Incentives		variances) who meet or exceed stream buffer requirements in developments who agree to maintain buffers for specified period; similar incentives for homeowners		2006		
District-wide Septic System Maintenance	Polk, Bartow Counties Environmental Health, Northwest Georgia Health District	Expand ongoing education and outreach to promote proper maintenance of private septic systems using DVD program	Homeowners with existing septic systems	Recommend 2006		

VII. MONITORING PLAN

The purposes of monitoring are to obtain more data, to determine the sources of pollution, to describe baseline conditions, and to evaluate the effects of management and activities on water quality. Describe any sampling activities or other surveys - active, planned or proposed - and their intended purpose. Reference the development and submission of a Sample Quality and Assurance Plan (SQAP) if monitoring for delisting purposes.

Table 6. MONITORING PLAN

PARAMETER (S) TO BE MONITORED	ORGANIZATION	STATUS (CURRENT, PROPOSED, PLANNED)	TIME FRAME		PURPOSE (If for delisting, date of SQAP submission)
			START	END	
Total Suspended Solids @ 3 sites on the Euharlee (within the city limits) 1upstream, 1downstream of WPCP/City limits	City of Rockmart	Current	Jan. 2006 for NOV-APR; MAY-OCT	Possibly ending late 2006	Watershed Assessment for City NPDES Permit Condition (sampling the full set of watershed parameters, plus Habitat and Macroinvertebrate) Regulatory
Total Suspended Solids	EPD, USGS	Current	Every 5 years		Ongoing monitoring for listing, delisting of impaired streams
Total Suspended Solids	Bartow County	Current	Ongoing		Inclusion of TMDL impairments in Bartow County's Long-Term Monitoring Plan
Flow and Temperature; Chlorophyll A; Water Quality Sampling (BOD, DO, Temp, TKN, NH ₃ , NO ₂ ⁻ NO ₃ , total P, ortho-phosphate, TOC, conductivity, and Ph); Basin-wide Phosphorus; Wastewater Treatment Facility Sampling (FC, other); Long-term BOD	EPD, USGS	Current	2005-2006		Coosa River Basin Modeling study

VIII. PLANNED OUTREACH FOR IMPLEMENTATION

List and describe outreach activities which will be conducted to support this plan and the implementation of it.

Table 7. PLANNED OUTREACH

RESPONSIBILITY	DESCRIPTION	AUDIENCE	DATE
Sherri Henshaw, Coordinator, Keep Bartow Beautiful	Volunteers for stream cleanup on River Cleanup Day. Trash cleanup on DRY CREEK, a tributary to the Euharlee Creek in Bartow County jurisdiction.	Volunteers, teenagers from local schools, Keep Bartow Beautiful, Bartow 4-H Clubs, Mountain District EPD office, Lake Allatoona Corps of Engineers	October 31, 2005
Bartow Co. Director of Planning and Zoning	Comprehensive stormwater awareness training program	Bartow County Homeowner's Association	Ongoing since July 2004
Sherri Henshaw, Coordinator, Keep Bartow Beautiful	Teacher Training for Waste In Place, Project WET (Water Education for Teachers "to facilitate and promote awareness, appreciation, knowledge, and stewardship of water resources," Enviroscope (illustrates non-point source pollution in the classroom using tabletop model)	Teachers, students in grades K-12	Ongoing
Sherri Henshaw, Coordinator, Keep Bartow Beautiful	Stormwater-related presentation materials provided to schools	Elementary and Middle schools	Yearly since October 2004
Sherri Henshaw, Coordinator, Keep Bartow Beautiful	Develop a speakers' bureau to provide outreach on storm water issues	Local civic groups	Ongoing since July 2004
Bartow County Staff	Develop mechanism to improve "interjurisdictional cooperation on TMDL and Watershed Improvement issues"	, Paulding County, and Polk County	Proposed
Kathy Floyd, Bartow County Extension Agent	Articles on water quality written for local newspaper, ongoing outreach on water quality issues	Bartow 4-H Club, citizens	Ongoing
Rolling Hills Resource Conservation and Development Council	Envirothon, a yearly district and state competition for high school students testing skills and knowledge of aquatics including water quality, and other environmental topics	High School Students	March 2006
Adopt-A-Stream, in conjunction with Coosa River Basin Initiative (CRBI)	Water quality chemical and biological volunteer training and monitoring, stream clean-up, stream bank and habitat restoration, and visual stream surveys	Individuals, families, school groups, civic clubs, and businesses	Ongoing
CRBI	Non-point source pollution education program	Elementary school students	Ongoing
Sherri Henshaw, Coordinator, Keep Bartow Beautiful; Clean Water Campaign; Allatoona Community Association	Educational workshop on maintaining septic tanks. Topics include "Different Functions of Septic Tanks; How They Should Function; Common Causes of Failure; Maintenance For Longevity; Potential Contaminants in the Effluent; and Site Limitations"	Homeowners, community	Proposed
Sherri Henshaw, Coordinator, Keep Bartow Beautiful; Clean Water Campaign; Diane Minick	Workshop on rain gardens for stormwater catchment from driveways and lawns.	Homeowners, Community	Proposed
Sherri Henshaw Coordinator, Keep Bartow Beautiful	Volunteer storm drain stenciling	Community	Ongoing
Janice Granai, Park Naturalist, Red Top	Demonstration rain garden at with signage.	Homeowners, Community	Ongoing

Mountain State Park			
Bartow County Board of Tax Assessors	Implement tax relief program for property owners who place conservation easements on all or part of properties, especially for greenspace on Timber lands	Property owners especially those with large timber holdings	Proposed
Adopt-A-Stream, in conjunction with Coosa River Basin Initiative (CRBI)	Water quality chemical and biological volunteer training and monitoring, stream clean-up, stream bank and habitat restoration, and visual stream surveys	Individuals, families, school groups, civic clubs, and businesses	Ongoing
CRBI	The Coosa River Basin Initiative conducts non-point source pollution education programs for elementary school students in Floyd County through a grant from Temple-Inland. As well, Get the Dirt Out is another project which provides volunteer training for construction site inspection and identification of failure to use BMPs in construction activities. The project was implemented in March 2005 and covers the Northwest Georgia area of the Coosa River Basin. Monitoring efforts are proposed to measure sedimentation in Coot's Lake in Polk County.	Elementary school students	Ongoing
Polk County Environmental Health Department	Participates in a statewide DVD education program for new septic system owners.	Landowners	Ongoing
Bartow, Polk Counties, Cities of Rockmart, Aragon, Euharlee	Stormwater Management Education and Outreach <ul style="list-style-type: none"> Complete Center for Watershed Protection's <u>Codes and Ordinances Worksheet</u> Consider Adopting 22 Model Development Principles as discussed in <u>Better Site Design: A Handbook for Changing Development Rules in Your Community</u> where applicable Implement education of community using After the Storm non-point source pollution video presentation on public access channels Reconvene Stormwater Working Group to include all counties, municipalities in Coosa Valley RDC area Will investigate 319 h non-point source pollution grant possibilities regarding funding for development of stormwater management training for municipal employees 	General Public	2006
Bartow, Polk Counties, Cities of Rockmart, Aragon, Euharlee		General Public	2007-2008
Bartow, Polk Counties, Cities of Rockmart, Aragon, Euharlee		General Public	Ongoing
Coosa Valley RDC, stakeholders		All counties, municipalities in Coosa Valley RDC area	2006
Coosa Valley RDC, stakeholders		Bartow, Polk Counties, Cities of Rockmart, Aragon, Euharlee	2006
Coosa Valley RDC, stakeholders	Septic System Maintenance Education and Outreach <ul style="list-style-type: none"> Investigate expansion of district-wide outreach component to homeowners to include those with existing systems 	General Public	2006

Coosa Valley RDC, stakeholders	<ul style="list-style-type: none"> Will investigate 319 h non-point source pollution grant possibilities regarding septic system maintenance and repair project 	General Public	2006
Local Governments USDA NRCS/FSA, County Extension Service Coosa Valley RDC, stakeholders	<p>Riparian Buffer Education and Outreach</p> <ul style="list-style-type: none"> Consider adopting relevant principles as detailed in 22 Model Development Principles as discussed in <u>Better Site Design: A Handbook for Changing Development Rules in Your Community</u> Continue education and outreach to local communities through USDA NRCS/FSA, County Extension Service Will investigate 319 h non-point source pollution grant possibilities regarding purchasing and distribution of education materials encouraging homeowners to develop, maintain riparian buffers 	<p>General Public</p> <p>General Public, Homeowners</p> <p>Homeowners</p>	<p>2007-2008</p> <p>Ongoing</p> <p>2006</p>
Coosa Valley RDC, stakeholders	<p>Investigate Funding Sources</p> <ul style="list-style-type: none"> Will investigate 319 grant possibilities regarding development of a project to survey schools in Coosa Valley RDC service area to determine interest in and feasibility of water quality education, specifically on causes of non-point source pollution, importance of riparian buffers, and stormwater pollution prevention 	General Public	2006
Workshop on proper maintenance of septic systems for Allatoona Community Association homeowners	Keep Bartow Beautiful Coordinator	2006	2006

IX. MILESTONES/ MEASURES OF PROGRESS OF BMPs AND OUTREACH

This table will be used to **track and report progress of management measures including BMPs and outreach**. Record milestone dates for:

- accomplishment of management practices or activities
- outreach activities
- installation of BMPs

to attain water quality standards. Comment on the effectiveness of the management measure, how much support the measure was given by the community, what was learned, how the measure might be improved in the future, and any other observations made. This table can be "pulled out" of this template and used to report and track progress.

Table 8. MILESTONES

MANAGEMENT MEASURE	RESPONSIBLE ORGANIZATIONS	STATUS PROPOSED INSTALLED		COMMENT
Provide septic system maintenance outreach to Bartow County residents	Bartow County Septic System Outreach Subcommittee	Proposed 1/31/06		May integrate with planned District-wide expansion of education/ outreach
Components of Bartow County's NPDES Phase II Stormwater Management Plan: Public Education and Outreach <ul style="list-style-type: none"> School System Stormwater Presentations E & S Training Workshop Speaker's Bureau Stormwater Educational Materials Stormwater Web Page Newspaper Articles 	Keep Bartow Beautiful Coord. Bartow County Dir. Engineering Keep Bartow Beautiful Coord. Bartow County Dir. Engineering County Engineer/ IT Director Bartow County Extension Agent	2004 2004 2004 2005 2005	2004-2006 2004 Ongoing 2006 2006 2006	
Components of Bartow County's NPDES Phase II Stormwater Management Plan: Public Participation and Involvement <ul style="list-style-type: none"> Storm Drain Stenciling River Clean-up 	Keep Bartow Beautiful Coord. Keep Bartow Beautiful Coord.	2003 2004	2004 2007	
Components of Bartow County's NPDES Phase II Stormwater Management Plan: Illicit Discharge Detection and Elimination <ul style="list-style-type: none"> Storm Sewer Map Ordinance/Regulatory Mech. Evaluation Illicit Discharge Detection/ Elimination Ordinance Industry Database Dry Weather Screening Source Tracing/Removal Proced. 	Bartow County Bartow County Bartow County Engineer Bartow County Engineer Bartow County Engineer Bartow County Engineer	2004 2004 2005 2005 2005 2005	2004-2006 2005 2005 2006-2009 2008 2006	
Components of Bartow County's NPDES Phase II Stormwater Management Plan:				

<p>Construction Site Storm Water Runoff Control</p> <ul style="list-style-type: none"> • Ordinance Evaluation • Litter Control Ordinance • Development Plan Review • Stormwater Quality Site Inspections • Stormwater Quality Violation Plan • Erosion & Sedimentation Certification • Citizen Complaint Hotline 	<p>Bartow County Engineer Bartow County Engineer Bartow County Engineer Bartow County Engineer/Inspection</p> <p>Bartow County Engineer/Inspection Bartow County Engineer</p> <p>Code Enforcement/ County Engineer</p>	<p>2004 2005 2005 2005</p> <p>2005 2005</p> <p>2005</p>	<p>2006 2006 2006 2006</p> <p>2006 2006</p> <p>2006</p>	
<p>Components of Bartow County's NPDES Phase II Stormwater Management Plan: Post-Construction Storm Water Management in New Development and Redevelopment</p> <ul style="list-style-type: none"> • Ordinance Evaluation • Stormwater Management Ordinance • Conservation Subdivision Ordinance • Adoption of Stormwater Design Manual • Countywide Watershed Assessment • BMP Mapping • Stormwater Management Facility Inspection & Maintenance Program • New Stormwater Management Facility Water Quality Assessment 	<p>Bartow County Engineer Bartow County Engineer</p> <p>Bartow County Engineer</p> <p>Bartow County Engineer</p> <p>Director- Water & Sewer</p> <p>County Engineer Road Dept. Director/ County Engineer</p> <p>County Engineer</p>	<p>2004 2005</p> <p>2005</p> <p>2003</p> <p>2005</p> <p>2005 2005</p> <p>2005</p>	<p>2005 2005</p> <p>2005-2006</p> <p>2003-2006</p> <p>2006-2010</p> <p>2005-2006 2005</p> <p>2005</p>	
<p>Components of Bartow County's NPDES Phase II Stormwater Management Plan: Pollution Prevention and Good Housekeeping</p> <ul style="list-style-type: none"> • County Fleet Maintenance Fluids Recycling • Employee Hazardous Materials Training • Roadside Cleanup • Evaluation, Implementation of Stormwater Pollution Prevention Plans for County Facilities • Bring One for The Chipper • Collection Centers 	<p>Bartow County</p> <p>Solid Waste Director</p> <p>County Administrator/ Director, Water & Sewer</p> <p>Solid Waste Director Director, Water & Sewer</p> <p>Keep Bartow Beautiful Coordinator Solid Waste Director</p>	<p>2004</p> <p>2004</p> <p>2004 2005</p> <p>2005 2004</p>	<p>2004-2006</p> <p>2004-2008</p> <p>2005 2006</p> <p>2005 2004</p>	

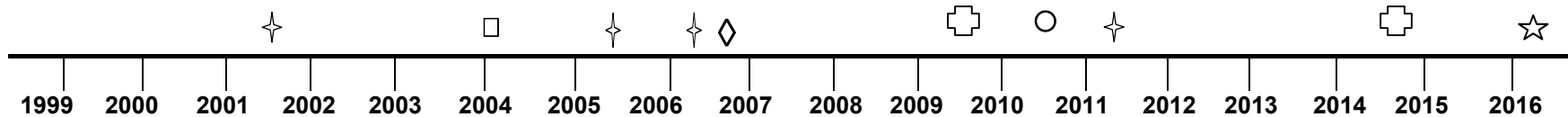
<ul style="list-style-type: none"> Existing Pond Water Quality Assessment Vacuum and Jet Clean Storm Structures Illegal Dumping Control 	Road Dept. Director/ County Engineer Road Dept. Director/ Stormwater Superintendent of Operation and Maintenance Solid Waste Director	2005 2005 2005	2005-2007 2005 2005-2008	
Provide septic system maintenance outreach to Bartow County residents	Bartow County Septic System Outreach Subcommittee	Proposed 1/31/06		Will determine best contact and outreach methods. Several possibilities including mass mailing, or developing a student internship
Stormwater education	Bartow County	Proposed 12/05		Through Keep Bartow Beautiful, Stormwater Management, will educate children and homeowners through presentations and website
Workshop on proper maintenance of septic systems for Allatoona Community Association homeowners	Keep Bartow Beautiful Coordinator	2006	2006	
Metro North Georgia Water Planning District Model Storm Water Management Ordinances: Post Development Storm Water Management for New Development and Redevelopment	Bartow County	2005	2005	
Metro North Georgia Water Planning District Model Storm Water Management Ordinances: Conservation Subdivision/ Open Space Development	Bartow County	2005	2005	
Metro North Georgia Water Planning District Model Storm Water Management Ordinances: Illicit Discharge and Illegal Connection Ordinance	Bartow County	2005	2005	
Metro North Georgia Water Planning District Model Storm Water Management Ordinances: Litter Control Ordinance	Bartow County	2005	2005	
Metro North Georgia Water Planning District Model Storm Water Management Ordinances: Stream Buffer Protection Ordinance	Bartow County	2005	2005	
Stormwater Management Education and Outreach				
<ul style="list-style-type: none"> Complete Center for Watershed Protection's <u>Codes and Ordinances Worksheet</u> Consider Adopting 22 Model Development Principles as discussed in <u>Better Site Design: A Handbook for Changing Development Rules in Your</u> 	Bartow, Polk Counties, Cities of Rockmart, Aragon, Euharlee Bartow, Polk Counties, Cities of Rockmart, Aragon, Euharlee	Summer 2006 2007-2008		

<p><u>Community</u> where applicable</p> <ul style="list-style-type: none"> Implement education of community using After the Storm non-point source pollution video presentation on public access channels Reconvene Stormwater Working Group to include all counties, municipalities in Coosa Valley RDC area Will investigate 319 h non-point source pollution grant possibilities regarding funding for development of stormwater management training for municipal employees 	<p>Bartow, Polk Counties, Cities of Rockmart, Aragon, Euharlee</p> <p>Coosa Valley RDC, stakeholders</p> <p>Coosa Valley RDC, stakeholders</p>	<p>Ongoing</p> <p>2006</p> <p>2006</p>		<p>Application deadline May 31, 2006. Yearly deadline.</p>
<p>Septic System Maintenance Education and Outreach</p> <ul style="list-style-type: none"> Investigate expansion of district-wide outreach component to homeowners to include those with existing systems Will investigate 319 h non-point source pollution grant possibilities regarding septic system maintenance and repair project 	<p>Coosa Valley RDC, stakeholders</p> <p>Coosa Valley RDC, stakeholders</p>	<p>2006</p> <p>2006</p>		<p>Application deadline May 31, 2006. Yearly deadline.</p>
<p>Riparian Buffer Education and Outreach</p> <ul style="list-style-type: none"> Consider adopting relevant principles as detailed in 22 Model Development Principles as discussed in <u>Better Site Design: A Handbook for Changing Development Rules in Your Community</u> Continue education and outreach to local communities through USDA NRCS/FSA, County Extension Service Will investigate 319 h non-point source pollution grant possibilities regarding purchasing and distribution of education materials encouraging 	<p>Bartow, Polk Counties, Cities of Rockmart, Aragon, Euharlee</p> <p>USDA NRCS/FSA, County Extension Service</p> <p>Coosa Valley RDC, stakeholders</p>	<p>2007-2008</p> <p>Ongoing</p> <p>2006</p>		<p>Application deadline May 31, 2006. Yearly deadline.</p>

homeowners to develop, maintain riparian buffers				
<p>Investigate Funding Sources</p> <ul style="list-style-type: none"> Will investigate 319 grant possibilities regarding development of a project to survey schools in Coosa Valley RDC service area to determine interest in and feasibility of water quality education, specifically on causes of non-point source pollution, importance of riparian buffers, and stormwater pollution prevention 	Coosa Valley RDC, stakeholders	2006		Application deadline May 31, 2006. Yearly deadline.

PROJECTED ATTAINMENT DATE

The projected date to attain and maintain water quality standards in this watershed is 10 years from acceptance of the TMDL Implementation Plan by Georgia EPD.



- Scheduled EPD Basin Group Monitoring ✦
- TMDL Completed □
- Revised TMDL Implementation Plan Accepted ◇
- Plan Status Evaluation Report ⊕
- Plan Update or Revision, if Necessary ○
- Project Attainment for Plans Prepared in 2006 ☆

Prepared By:	Julianne Meadows		
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Date Submitted to EPD:	04/22/06	Revision:	01

amended.

APPENDIX A. STAKEHOLDERS

List the names, addresses, telephone numbers, and e-mail addresses for local governments, agricultural or commercial forestry organizations, significant landholders, businesses and industries, and local organizations including environmental groups and individuals with a major interest in this watershed.

NAME/ORG	ADDRESS	CITY	STATE	ZIP	PHONE	E-MAIL
Jimmy Hughes, City of Rockmart	P.O. Box 231	Rockmart	GA	30153	770.684.2360	jimmy.hughes@rockmart-ga.gov
Craig Taylor, City of Rockmart, Code Enforcement	P.O. Box 231	Rockmart	GA	30153	770.684.2720	craig.taylor@rockmart-ga.gov
Sherri Henshaw, Coordinator, keep Bartow Beautiful	P.O. Box786	Cartersville	GA	30120	770.387.5167 Fax: 770.606.2382	henshaws@bartowga.org
Bobby Gay, Zoning and Code Enforcement officer	30 Burge's Mill Road	Euharlee	GA	30145	770-386-1542 ext 210	code@euharlee.com
Sherri Teems, National Resource Conservation Service	1401 Dean Street Suite I	Rome	GA	30161	(706) 291-5651 X 3	sheri.teems@ga.usda.gov
Denise Croker, County Ranger, Georgia Forestry Commission	1735 Rockmart Highway	Cedartown	GA	30125	770-749-2251	polkunit@gfc.state.ga.us
Richard Martin, Gen. Manager, Polk Co. Water Authority	1381 Rockmart Hwy, PO Box K	Cedartown	GA	30125	770-749-2132	pch20@bellsouth.net
Ricky Ensley County Extension Agent	20 North Main Street	Cedartown	GA	30125	(770) 749-2142	Rensley@uga.ga
Cindy Haygood Rolling Hills Regional Conservation and Development Council	P.O. Box 1550	Dallas	GA	30132	(770) 505-4288	Cindy.Haygood@ga.usda.gov
Keith Gilmer Georgia Soil and Water Conservation Commission	700 East 2nd Ave. Suite J	Rome	GA	30161	(706) 295-6131	K_gilmer@gaswcc.org
John Loughridge Georgia Soil and Water Conservation Commission	700 East 2nd Ave. Suite J	Rome	GA	30161	(706) 295-6131	J_loughridge@gaswcc.org
Machelle Simmons USDA Natural Resource Conservation Service	717 South Wall Street Suite 1	Calhoun	GA	30701	(706) 629-2582 X 3	Machelle.simmons@ga.usda.gov
Steve Bradley County Administrator	135 West Cherokee Avenue Suite 241	Cartersville	GA	30120	(770) 387-5030	bradleys@bartowga.org
Lamont Kiser Bartow County Engineer	135 West Cherokee Avenue Suite 241	Cartersville	GA	30120	(770) 387-5067	kiserl@bartowga.org

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Tammy Decker USDA Rural Development	12 Felton Place	Cartersville	GA	30120	(770) 386-3393	Tammy.decker@ga.usda.gov
Donna Akins City of Cedartown Water and Sewer	P.O. Box 65	Cedartown	GA	30125	(770) 748- 1225	Ctwwtp01@aol.com
Gene Camp Bartow County Water System	P.O. Box 850	Cartersville	GA	30120	(770) 387-5170	campg@bartowga.org
Kenneth M. Akins Etowah Indian Mounds Site Manager	813 Etowah Indian Mound Road, S.E.	Cartersville	GA	30120	(770) 387-3747	Etowah_mounds@dnr.state.ga.us
Jim Stafford City of Cartersville Water Department	P.O. Box 1390	Cartersville	GA	30120	(770) 387-5653	jstafford@cityofcartersville.org
Kathy Floyd County Extension Agent	320 W. Cherokee Ave. Room 112	Cartersville	GA	30120	(770) 387-3747	Kpfloyd@uga.edu
Jerry Jennings Floyd County Board of Commissioners	8006 Blacks Bluff Road SW	Cave Springs	GA	30124	(770) 290-2665	jjennings@berry.edu
Irwin Bagwell Bagwell Dairy	100 Bagwell Rd	Cave Spring	GA	30124	(706) 777-8474	bagwe@bellsouth.net
Ken Hutchins Polk County Environmental Health	125 East Ware Street	Cedartown	GA	31025	(770) 749-2270	krhutchins@dnr.state.ga.us
Commissioner Mark Sullins Polk County Board of Commissioners	44 Rolling Hills Road	Cedartown	GA	30125	(770) 748-7674	sullinsent@bellsouth.net
Danny Kay, Wastewater Treatment Operator	P.O. Box 231	Rockmart	GA	30153		
Mike Morrissey, Polk County Water Authority	1290 Morgan Valley Rd.	Rockmart	GA	30153		
Bill Cummings	735 Morgan Valley Rd.	Rockmart	GA	30153		
Karolyn Hutcheson, Polk County Chamber of Commerce	604 Goodyear St	Rockmart	GA	30153		
Jeff Ellis, City Manager City of Rockmart	P.O. Box 231	Rockmart	GA	30153		
Curt Gervich Etowah Habitat Conservation Program	P.O. Box 287	Acworth	GA	30503	(678) 801-4013	curt@etowahhcp.org
Joe Cook, Executive Director, or Katie Owens, Program Coordinator, Coosa River Basin Initiative	408 Broad St.	Rome	GA	30161	(706) 767-0497	crbi@coosa.org keady@coosa.org

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APPENDIX B.

UPDATES TO THIS PLAN

Describe any updates made to this plan. Include the date, section or table updated, and a summary of what was changed and why.

APPENDIX C.

0315010414 Euharlee Creek Field Survey Photographs and Watershed Map

Field Survey Photographs

1. 0315010414 Euharlee Creek Polk and Bartow Counties (EPA): Hightower Mountain Rd spring headwaters, row cropping on right-hand side.



2. 0315010414 Euharlee Creek Polk and Bartow Counties (EPA): Taylorsville Rd cattle farm with some stream access.



3. 3015010416 Euharlee Creek Hills Creek to Upstream Plant Bowen: Old Alabama Rd- Corn row crops.



0315010414 Euharlee Creek
Watershed Map

